## \$1,000,000,000 Tennessee Valley Authority

### 6.15% Power Bonds 1998 Series B Due January 15, 2038

The 6.15% Power Bonds 1998 Series B Due January 15, 2038 (the "Bonds") of the Tennessee Valley Authority ("TVA") will pay interest on January 15 and July 15 of each year, commencing July 15, 1998. The Bonds will not be subject to redemption prior to maturity. The Bonds will be issued in minimum denominations of \$1,000 and integral multiples thereof in book-entry form through the Federal Reserve Banks. See "Description of Bonds".

The Bonds may be separated (''stripped'') into their separate Interest and Principal Components (as hereinafter defined) and maintained as such on the book-entry records of the Federal Reserve Banks. The components of each stripped Bond are: each future interest payment (each an ''Interest Component'') and the principal payment (the ''Principal Component'' and together with the Interest Components hereinafter collectively referred to as the ''Strips''). See ''Description of Bonds''— ''Stripping'' and ''Tax Matters''— ''Tax Considerations Applicable to Strips''.

Application has been made to list the Bonds on the New York Stock Exchange.

TVA is a wholly owned corporate agency and instrumentality of the United States of America. Principal and interest will be payable solely from TVA's Net Power Proceeds (as defined herein).

The Bonds will be issued, maintained and transferred only on the book-entry system of the Federal Reserve Banks, as described herein.

THE BONDS WILL NOT BE OBLIGATIONS OF, NOR WILL PAYMENT OF THE PRINCIPAL THEREOF OR THE INTEREST THEREON BE GUARANTEED BY, THE UNITED STATES OF AMERICA. THE BONDS ARE NOT REQUIRED TO BE REGISTERED UNDER THE SECURITIES ACT OF 1933. ACCORDINGLY, NO REGISTRATION STATEMENT HAS BEEN FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. TVA IS NOT SUBJECT TO THE PERIODIC REPORTING REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934.

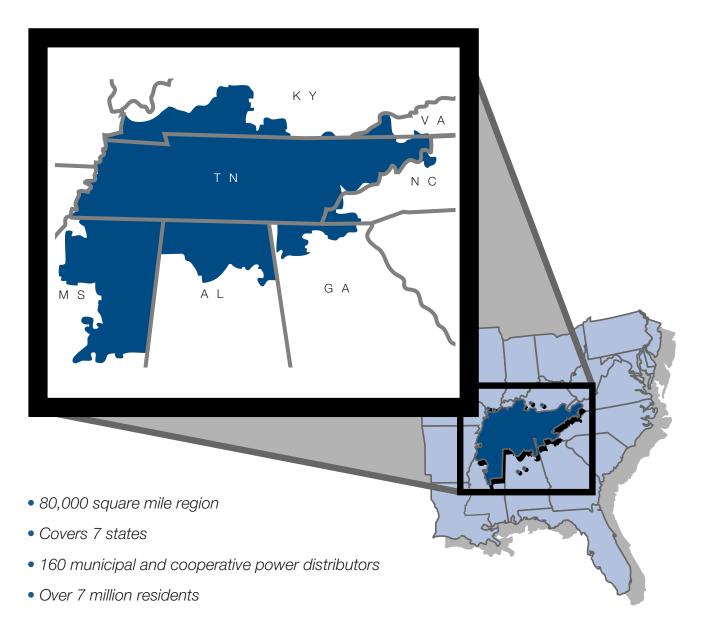
The Bonds will be purchased solely by Goldman, Sachs & Co. at a purchase price of 99.104% of the principal amount thereof (\$991,040,000 in the aggregate) plus accrued interest from January 15, 1998 to the date of delivery. The Bonds will be offered to the public initially at an offering price of 99.454% of the principal amount thereof (\$994,540,000 in the aggregate) plus accrued interest from January 15, 1998 to the date of delivery.

The Bonds offered by this Offering Circular are offered by the Underwriter subject to prior sale, withdrawal, cancellation or modification of the offer without notice, to delivery to and acceptance by the Underwriter and to certain further conditions. It is expected that delivery of the Bonds, in book-entry form, will be made through the book-entry system of the Federal Reserve Banks on or about January 15, 1998 against payment therefor in immediately available funds.

### Goldman, Sachs & Co.

The date of this Offering Circular is January 7, 1998

### **Region Served by The Tennessee Valley Authority**



TVA is a federal corporation established by Congress in 1933. TVA supplies electricity and develops resources in areas covering parts of seven states.



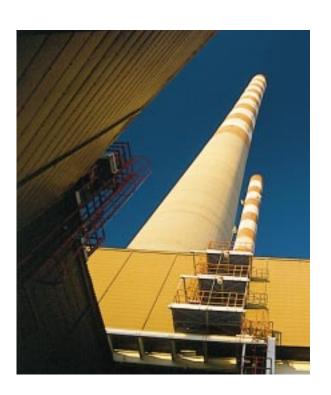
## BUILDING A COMPETITIVE FUTURE

TVA is poised to be a major

player in what is predicted to be
a new, highly competitive electric

utility market. With one of the
largest generating and
transmission systems in the

United States, TVA's power
operations form a vital part of the
nation's energy infrastructure.





Like many corporations, TVA has in recent years taken steps to reduce expenses and at the same time improve its products and services. As a result, TVA has frozen its power rates for ten years

in a row, extending the rate freeze through 1997. TVA's distributors already have among the lowest residential rates in the country.

TVA is a unique organization that is part business and part government. It operates an electric power system but also carries out programs mandated by the U.S. Congress, such as economic development, natural resource development, and flood control on the Tennessee River.

TVA's electric power operations are entirely self funding and are not supported by U.S. federal tax dollars. Revenues from TVA power sales were about \$5.7 billion in fiscal year 1996.

TVA's congressionally mandated programs are

funded through federal tax dollars. Congressional appropriations were \$106 million for fiscal year 1997.

TVA applied six decades of water management expertise to the development of the first Olympic whitewater course on a natural river. Reported by competing athletes to be the best in the world, TVA's Ocoee River was the site of the 1996 Olympic Canoe/Kayak-

Slalom competition.

TVA's programs involving power production, economic development, and resource development



have for 63 years improved the quality of life in the Tennessee Valley. Together, these programs attract business and industry to the area, create jobs, and promote the wise use of natural resources. TVA touches the lives of millions of people in ways that demonstrate how we are so much more than just an electric utility.

### **TVA Vision**

To be the recognized world leader in providing energy and related services, independently and in alliances with others, for society's global needs.

### **TVA Goals**

### **Customer Driven**

Be recognized by our customers as the best and easiest corporation with which to do business.

Anticipate the needs of our customers and continue to offer competitive prices.

### **Employee Sensitive**

Continually train employees to meet the challenges of the future; provide opportunities for employee career growth; attract and retain the most qualified employees who will take initiative and accept responsibility and accountability for exceeding customer expectations.

### **Environmentally Responsible**

Be a recognized leader in environmental stewardship in the interests of our customers, our employees and the other publics TVA serves.

### **Growth Oriented**

Aggressively and sensibly pursue growth and alliances that will add value to society, provide opportunities for our employees and ensure the future success of the corporation.



CERTAIN PERSONS PARTICIPATING IN THE OFFERING MAY ENGAGE IN TRANSACTIONS THAT STABILIZE, MAINTAIN OR OTHERWISE AFFECT THE PRICE OF THE BONDS, INCLUDING OVER-ALLOTMENT, STABILIZATION AND SHORT-COVERING TRANSACTIONS IN SUCH BONDS, AND THE IMPOSITION OF A PENALTY BID, IN CONNECTION WITH THE OFFERING. FOR A DESCRIPTION OF THESE ACTIVITIES, SEE "UNDERWRITING".

This Offering Circular should be read in conjunction with TVA's current Information Statement, dated December 23, 1996 (the "current Information Statement"), which is attached hereto and incorporated herein by this reference. Any statement contained in the current Information Statement shall be deemed to be modified or superseded for all purposes of the current Information Statement and this Offering Circular to the extent that a statement contained in this Offering Circular modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified, to constitute a part of the current Information Statement. Additional copies of this Offering Circular and of the current Information Statement may be obtained upon written request directed to Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902, Attention: Vice President and Treasurer, or by calling (423) 632-3366. The then current Information Statement and other information concerning TVA may be inspected at the offices of the New York Stock Exchange, 20 Broad Street, New York, New York 10005.

### FORWARD-LOOKING STATEMENTS

This Offering Circular and the current Information Statement contain forward-looking statements relating to future events and future performance. Although TVA believes that these statements are accurate, TVA does not guarantee their accuracy. Numerous factors could cause actual results to differ materially from those in the forward-looking statements. Such factors include, among other things, new laws and regulations, especially those related to the deregulation of electric utilities, the status of TVA as a government agency, and various environmental matters; increased competition among electric utilities; legal and administrative proceedings affecting TVA; the financial environment; performance of TVA's generating facilities; fuel prices; the demand for electricity; weather conditions; changes in accounting standards; and unforeseeable adverse events.

### **SUMMARY OF OFFERING**

The information below is qualified in its entirety by the detailed information appearing in TVA's current Information Statement (and any supplement thereto) and elsewhere in this Offering Circular. Capitalized terms used and not defined herein have the meanings defined in such Information Statement and elsewhere in this Offering Circular.

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Issuer	TVA is a wholly owned corporate agency and instrumentality of the United States of America established by the Tennessee Valley Authority Act of 1933, as amended.
Securities Offered	\$1,000,000,000 aggregate principal amount of 6.15% Power Bonds 1998 Series B Due January 15, 2038.
Interest	The Bonds will bear interest from January 15, 1998, at the annual rate set forth on the cover page hereof, payable semi-annually in arrears on each January 15 and July 15, commencing July 15, 1998.
Redemption	The Bonds will not be subject to redemption prior to maturity.
Fiscal Agent	Federal Reserve Banks.
Listing	Application has been made to list the Bonds on the New York Stock Exchange.
Stripping	The Bonds may be stripped into their separate Interest and Principal Components and maintained as such on the bookentry records of the Federal Reserve Banks. The components of each stripped Bond are: each future interest payment and the principal payment. Each Interest Component and the Principal Component will have an identifying designation and CUSIP number. See "Description of Bonds" — "Stripping" and "Tax Matters" — "Tax Considerations Applicable to Strips", and see "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" — "Stripping" in the current Information Statement.
Delivery of Strips	The Underwriter of the Bonds immediately upon its acceptance of the Bonds may, but is not obligated to, strip some or all of the Bonds and deliver Strips rather than Bonds to investors purchasing Strips. Sales of any such Strips would be at negotiated prices. See "Underwriting".
Use of Proceeds	The net proceeds received by TVA from the sale of the Bonds will be used to retire existing debt.
Source of Payment	The interest and principal on the Bonds are payable solely from Net Power Proceeds and are not obligations of, or guaranteed by, the United States of America. See "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" in the current Information Statement.
Form and Denomination of Bonds	The Bonds will be issued and maintained and may be transferred by Holders only on the book-entry system of the Federal Reserve Banks. See "Description of Bonds"—"Book-Entry System". The Bonds will not be exchangeable for definitive securities. The Bonds will be issued and must be maintained and transferred in minimum denominations of \$1,000 and integral multiples thereof.

Legality of Investment	<ul> <li>Each person or entity is advised to consult with its own counsel with respect to the legality of investment in the Bonds or, in any stripped Interest and Principal Components thereof, which could be subject to restrictions or requirements that do not apply to Power Bonds held in their fully constituted form. Generally, Power Bonds in their fully constituted form are:</li> <li>acceptable as security for all fiduciary, trust, and public funds, the investment or deposit of which shall be under the authority or control of any officer or agency of the United States of America;</li> <li>eligible as collateral for Treasury tax and loan accounts;</li> <li>among those obligations which national banks may deal in, underwrite and purchase for their own accounts up to ten percent of unimpaired capital and surplus;</li> <li>eligible as collateral for advances by Federal Reserve Banks to member banks;</li> <li>legal investments for federal savings associations and federal savings banks to the extent specified in applicable regulations;</li> <li>eligible as collateral for advances by Federal Home Loan Banks to members for which Power Bonds are legal investments; and</li> </ul>				
	legal investments for federal credit unions.  See ''l egality of Investment''				
N. A. I. I. D. I.	See "Legality of Investment".				
No Acceleration Right	The Bonds will not contain any provisions permitting the Holders to accelerate the maturity thereof on the occurrence of any default.				
Taxation	. The Bonds are subject to various tax consequences. See "Tax Matters" — "Tax Considerations Applicable to Bonds".				
	For tax consequences with respect to the purchase, ownership, or disposition of Strips, see "Tax Matters"— "Tax Considerations Applicable to Strips".				
CUSIP Number	880591 CP5				
	The Bonds may be stripped, see "Description of Bonds"— "Stripping", into their separate Interest and Principal Components, for which Components the following CUSIP numbers will apply:				
	Interest Components  July 15, 1998				

July 15, 2006	88059E LT 9
January 15, 2007	88059E LU 6
July 15, 2007	88059E LV 4
January 15, 2008	88059E LW 2
July 15, 2008	88059E LX 0
January 15, 2009	88059E LY 8
July 15, 2009	88059E LZ 5
January 15, 2010	88059E MA 9
July 15, 2010	88059E MB 7
January 15, 2011	88059E MC 5
July 15, 2011	88059E MD 3
January 15, 2012	88059E ME 1
July 15, 2012	88059E MF 8
January 15, 2013	88059E MG 6
July 15, 2013	88059E MH 4
January 15, 2014	88059E MJ 0
July 15, 2014	88059E MK 7
January 15, 2015	88059E ML 5
July 15, 2015	88059E MM 3
January 15, 2016	88059E MN 1
July 15, 2016	88059E MP 6
January 15, 2017	88059E MQ 4
July 15, 2017	88059E MR 2
January 15, 2018	88059E MS 0
	88059E MT 8
July 15, 2018	
January 15, 2019	88059E MU 5
July 15, 2019	88059E MV 3
January 15, 2020	88059E MW 1
July 15, 2020	88059E MX 9
January 15, 2021	88059E MY 7
July 15, 2021	88059E MZ 4
January 15, 2022	88059E NA 8
July 15, 2022	88059E NB 6
January 15, 2023	88059E NC 4
July 15, 2023	88059E ND 2
January 15, 2024	88059E NE 0
July 15, 2024	88059E NF 7
January 15, 2025	88059E NG 5
July 15, 2025	88059E NH 3
January 15, 2026	88059E NJ 9
•	88059E NK 6
July 15, 2026	
January 15, 2027	88059E NL 4
July 15, 2027	88059E NM 2
January 15, 2028	88059E NN 0
July 15, 2028	88059E NP 5
January 15, 2029	88059E NQ 3
July 15, 2029	88059E NR 1
January 15, 2030	88059E NS 9
July 15, 2030	88059E NT 7
January 15, 2031	88059E NU 4
July 15, 2031	88059E NV 2
January 15, 2032	88059E NW 0
July 15, 2032	88059E NX 8
·	

J. J. J. J. J. J. J. J.	anuary 15, 2033 uly 15, 2033 anuary 15, 2034 uly 15, 2034 anuary 15, 2035 uly 15, 2035 anuary 15, 2036 uly 15, 2036 anuary 15, 2037 uly 15, 2037	88059E F 88059E F 88059E F 88059E F 88059E F 88059E F 88059E F 88059E F	NZ 3 PA 6 PB 4 PC 2 PD 0 PE 8 PF 5 PG 3 PH 1 PJ 7
Prin	ncipal Component	88059F E	3A 8

The Tennessee Valley Authority is the largest public electric power system in the United States of America, having produced nearly 153 billion kilowatt-hours of electricity in fiscal 1997. The TVA system is the supplier of electric power to a region containing approximately 7.3 million people located in parts of seven states: Tennessee, Kentucky, Mississippi, Alabama, Georgia, North Carolina and Virginia.

TVA is a wholly owned corporate agency and instrumentality of the United States established pursuant to the Tennessee Valley Authority Act of 1933, as amended (the "Act"), primarily to develop and manage the resources of the Tennessee Valley region. The programs at TVA consist of power and nonpower programs. TVA's electric system operations are required to be self-supporting from power system revenues, which were about \$5.6 billion in fiscal 1997. No tax dollars go into the operation of TVA's power program. The Act authorizes TVA to issue Evidences of Indebtedness (as such term is defined under "Description of Bonds") that may only be used to finance its power program. TVA's nonpower activities include responsibilities associated with operation of the Tennessee River system, land management, economic development and the environment. Congress provided \$70 million for TVA's nonpower programs in fiscal 1998. The appropriations legislation for fiscal 1998 anticipates no further appropriations to TVA for fiscal years thereafter. See "Recent Developments" — "Other Matters".

For over six decades, TVA has been associated with bringing prosperity to a significant region of the United States. Its dams have averted an estimated \$4 billion in flood damage, its power program brought electricity to a large undeveloped area of the country and its economic development program has contributed to a vast increase in the number of jobs in the Valley.

TVA's mission has evolved over the years as the needs of its customers have changed. The stated Vision of TVA is "to be the recognized world leader in providing energy and related services, independently and in alliances with others, for society's global needs". Operational excellence is the cornerstone of a successful future for TVA as it enters an era of deregulation. TVA reached an all-time peak demand of 26,670 megawatts on January 17, 1997.

Looking to the future, TVA in 1995 completed an integrated resource plan built on extensive public input, resulting in a 25-year plan to meet future energy needs. TVA is conducting a Strategic Planning Process to define how it will meet the challenges of a deregulated electric utility industry, including considering alliances with the private sector, both in the United States and internationally. TVA is committed to competing in a deregulated environment and will use its flexibility to respond to market changes while fulfilling its role of being an energy leader in price, service, and environmental stewardship.

#### **USE OF PROCEEDS**

The net proceeds received by TVA from the sale of the Bonds will be used to retire existing debt.

### RECENT DEVELOPMENTS

### **Financial Results**

The financial highlights for the fiscal years ended September 30, 1997 and 1996 have been derived from TVA's audited financial statements. The following information should be read in conjunction with the audited financial statements and notes thereto (the ''1997 Financial Statements'') presented on pages C-19 through C-37 herein.

### FINANCIAL HIGHLIGHTS — POWER PROGRAM

	As of and for the Years Ende September 30,				
	1997 (Millions o	1996 of dollars)	Percent Change		
Operating Revenues	\$ 5,552 (3,698)	\$ 5,693 (3,656)	(2)% 1%		
Operating Income	1,854 157 (2,003)	2,037 (10) (1,966)	(9)% — 2%		
Net Income	\$ 8	<u>\$ 61</u>	(87)%		
Total Assets	<u>\$33,684</u>	<u>\$34,029</u>	(1)%		
Capitalization					
Long-term Debt	\$24,726	\$25,570	(3)%		
Proprietary Capital	3,975	4,028	(1)%		
Total Capitalization	\$28,701	\$29,598	(3)%		

### **POWER SYSTEM STATISTICS**

As of and for the Years Ended

	As of allu i	Liided		
	1997	1996	Percent Change	
	(Millions of kilowatt- hours)			
System Input				
System Generation				
Hydro, including pumped storage	17,232	16,107	7%	
Fossil	93,417	97,046	(4)%	
Nuclear	42,008	35,426	19%	
Combustion Turbine	339	217	56%	
Total Net Generation	152,996	148,796	3%	
Purchased	5,393	4,929	9%	
Net Interchange and Wheeling	_(13,130)	(7,851)	67%	
Total System Input	145,259	145,874	=	
System Output				
Sales				
Municipalities and cooperatives	114,771	117,035	(2)%	
Industries directly served	17,359	16,599	5%	
Federal Agencies	7,567	6,966	9%	
Total Sales	139,697	140,600	(1)%	
Other	2,029	1,668	22%	
Losses	3,533	3,606	(2)%	
Total System Output	145,259	145,874	=	
Net Winter Dependable Capacity (megawatts)	28,417	28,123	1%	
Percent of Average Gross Generation to Net Winter Dependable	00.00	0.4.00	00/	
Capacity	68.23	64.39	6%	
System Peak Load (megawatts) — Summer	26,661	25,376	5%	
System Peak Load (megawatts) — Winter	26,670	24,995	7%	
Annual Load Factor	62.20	63.89	(3)%	
Percent Net Winter Dependable Capacity by Fuel Source				
Fossil	53%			
Nuclear	20%			
Hydro	19%			
Combustion Turbine	8%	8%	· —	

## COMPARATIVE FIVE-YEAR DATA STATISTICAL AND FINANCIAL SUMMARIES

For the Years Ended September 30, 1997 1993 1996 1995 1994 SALES (MILLION OF KILOWATT-HOURS) Municipalities and cooperatives . . . . . . . 114.771 117.035 110.245 108.073 105.566 Industries directly served ..... 17,359 16,599 16,684 15,792 16,196 7,567 6,966 7,226 2,382 Federal agencies ..... 4,407 139,697 134,155 128,272 Total sales ..... 140,600 124,144 OPERATING REVENUES (MILLIONS OF DOLLARS) Electric 4,980 \$ 4,479 Municipalities and cooperatives . . . . . 4,811 \$ 4,654 4,582 \$ 452 Industries directly served ..... 464 460 452 472 179 296 254 Federal agencies ..... 172 179 98 89 82 71 71 Other........ Total revenues..... 5,552 5,693 5,375 5.401 5,276 3.99 Revenue per kilowatt-hour (cents)(a) ... 3.90 3.94 4.03 4.06 WINTER NET DEPENDABLE GENERATING CAPACITY (MEGAWATTS) 5,384 5,225 5,242 Hydro(b) ..... 5,298 4,885 Fossil..... 15,014 15.012 15,032 15,032 15,088 5,625 5,545 3.342 3.342 3,365 Combustion turbine ..... 2,394 2,268 2,232 2,264 2,284 Total capacity ..... 28,417 28,123 25,831 25,880 25,622 System peak load (megawatts) — summer ..... 26,661 25,376 25.496 23,398 23,878 System peak load (megawatts) — winter 26.670 25,995 24.676 24.723 21,666 PERCENT GROSS GENERATION BY FUEL SOURCE 61% 65% 71% 72% 77% Fossil..... 12% 14% 11% 11% 13% Hydro ..... 17% 14% 28% 24% 10% FUEL COST PER KILOWATT-HOUR (CENTS) ..... 1.23 1.23 1.26 1.34 1.27 Fossil...... .56 1.10 Nuclear(c)...... .58 .61 1.09 Aggregate fuel cost per kwh net thermal generation ..... 1.04 1.06 1.14 1.31 1.25 FUEL DATA Net thermal generation (millions of 131,898 118,097 110,643 109,968 kilowatt-hours) ...... 135,735 1,381,837 1,338,157 1,197,295 1,120,868 1,105,395 Fuel expense (millions of dollars)..... 1.406 1,395 1.348 1.450 1,375 Cost per million Btu (cents) ...... 101.73 104.22 112.61 129.40 124.42 Net heat rate, fossil only ..... 10,180 10,145 10,138 10,131 10,052

<sup>(</sup>a) Excludes Department of Energy settlement payment of \$160 million for the years 1993-1994.

<sup>(</sup>b) Includes 405 megawatts of dependable capacity from the Corps of Engineers projects on the Cumberland River System.

<sup>(</sup>c) TVA changed its method of expensing the interest component of nuclear fuel expense in 1995.

#### Other Matters

TVA has contracted with Choctaw Generation, Inc. to purchase and take delivery of up to 440 megawatts of power over a 30-year term from a lignite power plant to be constructed in Mississippi, contingent upon satisfactory completion of all necessary environmental reviews. Commercial operation of the plant is currently scheduled for January 2001. The owner of the facility has construction and operating risks, and if the owner fails to deliver the required energy, the owner will be responsible for securing replacement power for TVA at the contractually agreed price.

In February 1997 the city council of Bristol, Virginia ("Bristol") approved a recommendation from the Bristol Virginia Utilities Board ("BVUB") that Bristol accept an offer from Cinergy to supply its power in the future. In April, Cinergy requested that TVA provide transmission service to enable Cinergy to provide electricity to Bristol. TVA agreed to provide that service consistent with the Federal Energy Regulatory Commission's ("FERC") open-access transmission orders and contingent upon stranded investment cost recovery determined in accordance with applicable law. In July Cinergy initiated a FERC proceeding to require TVA to provide transmission service upon terms more favorable to Cinergy. Among the terms being challenged is TVA's demand for payment of stranded investment costs. On November 25, 1997, FERC issued an order setting an evidentiary hearing on TVA's stranded cost claim. TVA and Cinergy are continuing to negotiate the terms and conditions under which TVA would allow Cinergy to utilize TVA's transmission system to provide electricity to Bristol. On December 31, 1997, the power contract between TVA and Bristol ended, and Bristol ceased being a TVA distributor.

In March 1997 Vice President Al Gore recognized six TVA employee teams with Hammer Awards for their efforts to make government work better and cost less. Hammer Awards are given to federal employees who break down unnecessary bureaucracy to build a better government. As part of the Vice President's reinventing government initiative, TVA was designated an official reinvention laboratory in 1994 to test ideas that make the federal government more efficient and responsive to the public.

In March 1997 a suit was filed in the United States District Court in Birmingham, Alabama, by four individuals challenging TVA's sale of power to Trico Steel Company, L.L.C. (''Trico''). Plaintiffs, who claimed to be employees of Trico's competitors, claimed that the TVA Act does not permit TVA to sell power to a limited liability company such as Trico; that the pricing provisions of TVA's power supply contract with Trico violated various sections of the TVA Act; and that the TVA Board's actions with respect to the Trico contract were unconstitutional because a provision of the TVA Act violates the separation of powers doctrine. Plaintiffs did not ask for monetary damages but sought to enjoin TVA from selling power to Trico and from issuing any additional power bonds until the alleged problems were corrected. TVA filed a motion asking the court to dismiss the complaint on several legal grounds. The court on September 24, 1997, granted TVA's motion and dismissed the lawsuit. The court held that the fixing of TVA's rates is not subject to judicial review and that plaintiffs did not have standing to maintain the lawsuit since they had not suffered the requisite injury. The court did not reach the other issues in the case. The plaintiffs have appealed the decision.

In April 1997 the U.S. Senate confirmed President Clinton's appointment of Johnny Hayes to serve a second term on the TVA Board of Directors. Hayes was appointed to the TVA Board by President Clinton in 1993 to fill the remainder of the term that expired in May 1996. He was given an interim recess appointment by the President until the Senate considered his reappointment to the new term, which extends to May 2005.

In May 1997 a team of employees from TVA's Browns Ferry Nuclear Plant received the Rochester Institute of Technology/USA Today Quality Cup for developing an on-line computer system that plans, schedules and maintains thousands of procedures and instructions. This system is expected to save TVA \$8.5 million a year.

In June 1997 TVA and Fort Payne, Alabama amended their wholesale power contract to provide that the contract will not end upon less than 15 years' notice. Prior to that time the contract was scheduled to expire in March 2000. TVA now has long-term commitments from 159 local power distributors that serve

in seven states. However, in recent months a number of TVA distributors, including some with the largest loads, have been expressing interest in revising the wholesale power contracts to allow them more options with respect to contract term and other matters. TVA has indicated its willingness to work with distributors to accommodate their desire for more flexibility. In this regard, the TVA Board recently approved offering distributors the option of moving from 10 or 15-year termination notice periods to a 5-year termination notice period. See "Rates, Customers and Market" — "Municipal and Cooperative Distributors" in the current Information Statement. Such contract amendments will be conditioned upon such notice not being given during the first five years after the effective date of the revision. TVA will agree that these term arrangements are deemed to provide for adequate recovery by TVA of any investment in generation, transformation, or transmission facilities for service to the distributor.

In October 1997, Congress enacted the Energy and Water Development Appropriations Act, 1998, Pub. L. No. 105-62, 111 Stat. 1320, 1338 (1997). The paragraph captioned "TENNESSEE VALLEY AUTHORITY" in Title IV of this act (such paragraph being hereinafter referred to as the "Appropriations Act paragraph") (1) appropriates \$70 million for TVA's nonpower programs in fiscal 1998; (2) anticipates no further appropriations to TVA for fiscal years thereafter; and (3) requires TVA, beginning with October 1, 1998, to fund nonpower programs that constitute "essential stewardship activities" with revenues derived from one or more of various sources, including power revenues, notwithstanding provisions of the TVA Act and power bond covenants to the contrary. TVA has not yet made determinations as to funding its nonpower activities after September 30, 1998.

### The Appropriations Act paragraph states:

For the purpose of carrying out the provisions of the Tennessee Valley Authority Act of 1933, as amended (16 U.S.C. ch. 12A), including hire, maintenance, and operation of aircraft, and purchase and hire of passenger motor vehicles, \$70,000,000, to remain available until expended, of which \$6,900,000 shall be available for operation, maintenance, surveillance, and improvement of Land Between the Lakes; and for essential stewardship activities for which appropriations were provided to the Tennessee Valley Authority in Public Law 104-206, such sums as are necessary in fiscal year 1999 and thereafter, to be derived only from one or more of the following sources: nonpower fund balances and collections; investment returns of the nonpower program; applied programmatic savings in the power and nonpower programs; savings from the suspension of bonuses and awards; savings from reductions in memberships and contributions; increases in collections resulting from nonpower activities, including user fees; or increases in charges to private and public utilities both investor and cooperatively owned, as well as to direct load customers: Provided, That such funds are available to fund the stewardship activities under this paragraph, notwithstanding sections 11, 14, 15, 29, or other provisions of the Tennessee Valley Authority Act, as amended, or provisions of the TVA power bond covenants: Provided further, That the savings from, and revenue adjustments to, the TVA budget in fiscal year 1999 and thereafter shall be sufficient to fund the aforementioned stewardship activities such that the net spending authority and resulting outlays for these activities shall not exceed \$0 in fiscal year 1999 and thereafter.

See "Tennessee Valley Authority" herein and "The Tennessee Valley Authority" and "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" in the current Information Statement.

In 1997 three other bills have been introduced in Congress which, beginning with fiscal years 1998 to 2001, would eliminate the provision in the TVA Act permanently authorizing appropriations for TVA. TVA does not anticipate enactment of these three bills. See "Tennessee Valley Authority" herein and "The Tennessee Valley Authority" in the current Information Statement.

As of September 1997 at least seven bills had been introduced in Congress that would mandate or promote competition in electric service at the retail level. Five of those bills would require retail competition by a date certain, and two of those bills would leave the final decision up to individual states. These bills, like ones introduced during the last Congress, would also result in other major changes in the electric power industry that would significantly impact both privately owned companies and publicly owned electric power suppliers like TVA and the distributors of TVA power. The amount of government

regulation, particularly for the latter, would greatly increase. In spite of their purpose to increase competition, some of these bills, as presently drafted, would not permit TVA and the distributors of TVA power to compete for customers outside the area for which TVA may be a source of power supply but would allow others to compete for customers of TVA and the distributors of TVA power. The Senate has not held formal hearings on these bills, but two days of hearings were held in the House in October. Hearings on various topics of competition and electric industry restructuring have also been held in the House and Senate. TVA still anticipates that in the event any retail choice legislation is enacted, such legislation would enable TVA and the distributors of TVA power to take part, reciprocally, in retail competition outside the area for which they can now be a source of electric power supply.

The most recent of these bills would mandate competition in electric service at the retail level. This bill would mandate retail competition nationwide as of January 1, 2002, but would permit TVA to sell power after that date at wholesale and its distributors to sell power at retail anywhere without geographic limitation. The bill also provides that any person that has contracted to purchase power from TVA, at retail or wholesale, may after that date terminate its contract on one year's notice notwithstanding the termination provisions in the contract. Such persons would, however, be responsible for TVA's stranded costs as determined by FERC. The bill would also require one-year termination periods in new power sales contracts. FERC would also be provided the authority to review and approve TVA's rates for transmission services and for retail and wholesale sales of power. TVA would be under an obligation to include within its rates the payment of the principal and interest on TVA power bonds over a reasonable period of time. The bill would also direct TVA to conduct a two-year study on the privatization of its electric power program. It is anticipated that this bill and other electric industry competition bills will be considered by Congress during 1998. See "Competition" in the current Information Statement.

In June 1997 Representative Bob Clement introduced a bill in the House of Representatives to create the "TVA 2000 Regional Commission". Under the bill, a twelve-member Commission (appointed by the President and by House and Senate leaders) representing a diversity of Tennessee Valley interests would complete a study and submit its report by the end of 1998. The Commission would conduct a comprehensive legal and factual study of the navigational, flood control, economic development, recreational, and economic impacts of the future structure, competitiveness and economic viability of TVA.

TVA has begun under the auspices of the Department of Energy (the "DOE") a regional process to gather views from a wide variety of stakeholder groups as to the role the TVA power system should play in the electric utility industry after nationwide competition has begun.

Three bills have been introduced in this Congress that would require the disposition of certain federally-owned hydroelectric system assets. None of these bills is applicable to TVA. Other such bills, which may include TVA, may be introduced. A similar proposal was not enacted during the past Congress. In TVA's opinion, enactment of such legislation is unlikely.

Several United States Environmental Protection Agency ("EPA") developments may affect the air pollution control requirements that are applicable to TVA's fossil plants. States and EPA are considering how the long-range transportation of both nitrogen oxide, which contributes to the formation of ozone, and ozone may contribute to violations of the ozone ambient air quality standard in downwind states. Eight northeastern states have petitioned EPA to order upwind states — including Alabama, Kentucky and Tennessee — to reduce their nitrogen oxide emissions. Also, EPA has proposed that nitrogen oxide emissions be reduced in 22 eastern states including Alabama, Kentucky, and Tennessee. Most of these reductions would come from utility units. EPA has also made the ozone ambient standard and the particulate matter standard more stringent along with proposed rules to reduce regional haze. These actions may lead to additional reductions of utility nitrogen oxide and sulfur dioxide emissions beyond those required by the acid rain provisions of the 1990 Clean Air Act amendments. The costs for such additional reductions are unknown at this time but would be substantial.

Pursuant to the United Nations Framework Convention on Climate Change, in December 1997 United States negotiators reached agreement with other nations in Kyoto, Japan, on a proposed treaty

that would require industrial nations to reduce their greenhouse gas emissions. The United States commitment would be to achieve a 7 percent reduction below 1990 levels by 2008-2012. Whether the proposed treaty will be ratified by the Senate and, if so, how it might be implemented are unknown at this time. However, if utilities are required to reduce their greenhouse gas emissions, the cost to TVA could be substantial.

Several developments affecting the unfinished Bellefonte Nuclear Plant occurred in 1997. TVA issued an Environmental Impact Statement evaluating the conversion of Bellefonte Nuclear Plant to a fossil fuel-fired plant. A feasibility study performed by an outside team of technical and financial experts indicates that one of the most economical fossil conversion strategies is to complete Bellefonte as a natural gas-fired combined-cycle plant. In addition, TVA submitted a proposal to the United States Department of Energy to complete Bellefonte as a nuclear plant and to operate it to produce tritium for DOE in addition to electricity. Further action on Bellefonte Nuclear Plant will depend on DOE's evaluation of and response to the TVA proposal.

In July 1997, Chief Financial Officer David Smith released the TVA Ten Year Business Outlook which sets targets for a 50 percent reduction in debt and a 15 percent reduction in the total cost of power by 2007. This plan recommended a price increase for fiscal year 1998 that would result in a 5.5 percent increase in TVA's power revenues, the first such increase in ten years. In August 1997, the TVA Board approved an increase in rates designed to provide such additional power revenues, and on October 1, 1997, TVA implemented the rate increase. The Ten Year Business Outlook also calls for TVA initiatives to reduce fuel, labor, and supply costs, with a proposed reduction of approximately 700 employees in TVA's power program workforce. In addition, the plan recommended offering the opportunity to TVA's distributor customers to change their power contracts after five years from a rolling ten-year term to a rolling five-year term. The Board subsequently approved making such arrangements available to the municipal and cooperative customers served by TVA. The plan has been built on assumptions that TVA believes to be reasonable, based upon today's knowledge and predictions for the future. However, future events may upset these assumptions and lead to plan modifications.

A September 1997 report by the GAO on the recurring and potential future costs to the federal government of its electricity-related programs concluded with respect to TVA that 1) the federal government's initial appropriation investment in TVA and debt obligations held by the Federal Financing Bank result in no net cost to the federal government; 2) as long as TVA's power program remains in a protected position similar to a traditional regulated utility, the risk of loss to the federal government is remote; and 3) if TVA is required to compete with other electric utilities at a time when wholesale prices are expected to fall, it is reasonably possible that losses to the federal government would occur if the government decided to voluntarily take any actions to prevent default on TVA's debt service requirements, even though TVA's debt is not guaranteed by the federal government. TVA does not agree with GAO's assessment of the risk of loss to the federal government. TVA's comments on the assessment are included in Volume 2 of the GAO report.

In November 1997, the Congressional Budget Office (the "CBO") released a study discussing the federal government's role in supplying electricity and possible options for changing that role. Among other things, the study found that the government could save money over the long term by selling many of the facilities it now uses to supply electric power but that the government may want to stay in the electric power business for other reasons. With regard to TVA, the CBO estimated that, depending on the market value at which TVA could be sold, the government could currently lose up to \$5.6 billion or gain up to \$2.5 billion by divesting itself of TVA. The study also cites what it terms "financial challenges" that TVA now faces and will face in the near future that could affect its earnings potential and ability to cover its capital obligations. TVA expresses no opinion on the accuracy of the CBO's study or on the likelihood of any change in the government owned status of TVA.

In April 1997 Alabama Power Company, Georgia Power Company, Mississippi Power Company, Entergy Mississippi, Inc., and Duke Power Company filed a lawsuit in the United States District Court in Birmingham, Alabama alleging that TVA was unlawfully selling power under the interchange agreements

with other electric systems in a manner inconsistent with the provisions of the TVA Act. They asked that the court enjoin TVA from entering into such transactions or arrangements and require TVA to take all reasonable steps to ensure that its power is not purchased for resale on the open market. In July 1997, a judgment was entered by the court approving a Settlement Agreement resolving all issues in the case. Under the settlement TVA reaffirmed its policy of limiting its exchange power transactions to those systems with which it had arrangements as of July 1, 1957, as provided for under the Act and has taken steps to ensure that the policy will be carried out. As part of the joint settlement all of the parties agreed to begin discussion on ways to increase cooperation and communication and identify legislative and other issues that are of mutual concern as the electric power industry prepares for deregulation.

In 1997 TVA provided both voluntary and involuntary severance packages affecting approximately 1700 employees, which resulted in TVA recording \$36 million in severance expense in fiscal 1997 (\$31 million during the fourth quarter of fiscal 1997). The terminations also gave rise to a pension curtailment gain of approximately \$27 million, which TVA recorded in the fourth quarter of fiscal 1997.

The collective bargaining agreement between TVA and the Tennessee Valley Trades and Labor Council (the "Council") (which is comprised of six unions representing annual trades and labor employees, including those working inside the power plants) has no specific expiration date; however, it contains provisions for possible expiration of major parts of the agreement as early as December 31, 1997, upon six months' notice, which notice TVA gave the Council in June 1997. TVA-Council negotiations were delayed for about 3 months because of lawsuits filed by some Council unions, but there are now no legal restrictions on continuance of negotiations. The parties re-commenced negotiation sessions but have since reached an impasse. With the expiration of parts of the agreement on December 31, 1997, TVA exercised its right to give a 90-day notice to reopen the remainder of the agreement with the Council, and potentially to cancel the agreement. The agreements with the Salary Policy Employee Panel (the "Panel") (which had been comprised of five unions representing white collar employees) also had no expiration date but provided for possible expiration of major parts of the agreement in 1999, upon 12 months' notice. However, in September 1997, two unions formerly belonging to the Panel, which together represent about 64 percent of the employees represented by Panel-affiliated unions, notified TVA and the Panel that they had disaffiliated from the Panel. After the Panel failed to provide TVA assurances that it could fulfill its contractual obligation to speak for all Panel unions, TVA informed the Panel that because it was in material breach of the TVA-Panel agreement, it was no longer appropriate for TVA to continue bargaining with the Panel. TVA, however, informed each of the five affected unions that it would recognize and separately bargain with each for their existing separate bargaining unit and that it was willing to extend to each of them, on an interim basis, the terms of the former TVA-Panel agreement, to the extent applicable to individual unions. To date, the two unions which notified the Panel of their disaffiliation have agreed to interim agreements, and both of these unions have concluded negotiations for a new separate agreement with TVA. Two other former Panel unions have yet to respond to TVA's offer of an interim agreement. (The bargaining unit for the remaining union has been merged into one of the other former Panel unions.) In October, TVA concluded negotiations with the International Brotherhood of Teamsters for a new agreement.

In recent weeks, TVA's executive compensation arrangements have come under increasing scrutiny from some members of Congress and from the press. It is possible that this scrutiny could result in legislative proposals to limit TVA's authority in this area. See "Employees" in the current Information Statement.

## MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

### **Results of Operations**

### Operating Environment

Net income for fiscal 1997 amounted to \$8 million, down from \$61 million in fiscal 1996. The reduction in earnings resulted from lower operating income attributable principally to mild weather experienced within TVA's service area during the winter and summer months of fiscal 1997, partially offset by other income related to certain investment earnings.

Net income for fiscal 1996 was \$61 million compared with \$10 million for fiscal 1995. This improvement was primarily driven by sales growth and increased operating efficiencies.

### Operating Revenues

Operating revenues were \$5,552 million in fiscal 1997 compared with \$5,673 million in fiscal 1996 and \$5,375 million in fiscal 1995. The \$141 million decrease was primarily due to a decrease in energy sales to municipalities and cooperatives as a result of the cool summer and warm winter during fiscal 1997. The TVA service area experienced 17 percent lower heating degree days and 11 percent lower cooling degree days during fiscal 1997 compared with fiscal 1996. Accordingly, total kWh sales decreased 0.9 billion kWh, from 140.6 billion in fiscal 1996 to 139.7 billion in fiscal 1997.

The \$318 million increase in operating revenues from fiscal 1995 to fiscal 1996 was primarily due to an increase in kWh sales of approximately six billion kWh (4.5 percent), from 134 billion in fiscal 1995 to over 140 billion in fiscal 1996. The increase in kWh sales primarily resulted from overall growth within the municipalities and cooperatives segment and more extreme weather conditions in fiscal 1996.

### Operating Expenses

Operating expenses increased \$42 million, or 1.2 percent, from \$3,656 million in fiscal 1996 to \$3,698 million in fiscal 1997. The operation of the Watts Bar Unit One and Browns Ferry Unit Three nuclear units for the entire fiscal year of 1997 resulted in higher depreciation and operating expenses in fiscal 1997 as compared with fiscal 1996. These expenses, however, were partially offset by lower net fuel and purchased power expense in fiscal 1997 compared with fiscal 1996 as a result of greater generation of lower-cost nuclear power and the decrease in total power sales for the year.

Total operating expenses increased \$208 million in fiscal 1996 versus fiscal 1995, or 6.0 percent, from \$3,448 million to \$3,656 million. The increase resulted primarily from increased generation during fiscal 1996 and the introduction of the two nuclear units to the power system. While operating and maintenance costs increased \$168 million, and depreciation and amortization expenses increased \$201 million, net fuel and purchased power expense declined \$165 million in fiscal 1996 compared with fiscal 1995 due to favorable fuel prices and greater off-system power sales.

### Other Income and Expenses

TVA had net other income of \$157 million in fiscal 1997 compared with net other expense of \$10 million in fiscal 1996 and \$91 million in fiscal 1995. The fiscal 1997 net other income consisted primarily of net investment earnings of the decommissioning trust funds of \$138 million. The fiscal 1995 net expense was primarily composed of a \$136 million charge for the voluntary early-out package offered employees, partially offset by the recognition of an \$81 million deferred gain from a 1993 sale of investments.

### Interest Expense

Gross interest expense remained essentially unchanged at \$2,084 million in fiscal 1997 compared with \$2,083 million in fiscal 1996. Total outstanding indebtedness net of unamortized discounts and other

adjustments as of September 30, 1997, was \$26.9 billion, with an average interest rate of 7.56 percent, compared with \$27.3 billion, with an average interest rate of 7.60 percent as of September 30, 1996. The allowance for funds used during construction decreased from \$117 million in fiscal 1996 to \$81 million in fiscal 1997 as a result of the decline in overall construction spending.

Gross interest expense for fiscal 1996 increased \$59 million compared with fiscal 1995. This increase resulted from an increase in total outstanding debt from \$26.7 billion as of September 30, 1995, to \$27.3 billion as of September 30, 1996. In addition, allowance for funds used during construction declined \$81 million from \$198 million in fiscal 1995 to \$117 million in fiscal 1996.

### **Liquidity and Capital Resources**

In February 1997 TVA issued in the public market \$300 million in Power Bonds (Valley Inflation-indexed Power Securities ("VIPs")) (due 2007) to retire existing debt. TVA entered into a swap agreement to hedge its inflation exposure with respect to the VIPs. In April 1997 TVA issued in the public market \$200 million in Power Bonds (due 1999) to retire existing debt. In July 1997 TVA issued in the public market \$1,500 million in Power Bonds (due 2036) to retire existing debt. In August 1997 TVA issued in the public market \$750 million in Global Power Bonds (due 2025) to retire existing debt. In October 1997 TVA issued in the public market \$250 million in Power Bonds (due 1999) to retire existing debt. In December 1997 TVA issued in the public market \$750 million in Power Bonds (due 2017) to retire existing debt. For the two months ended November 30, 1997, TVA increased short-term debt owed to the United States Treasury by \$131 million.

Subsequent to September 30, 1997, TVA monetized the call provisions on approximately \$2 billion of public bond issues. The premium received by TVA has been deferred and is being amortized over the term of the agreements.

### Accounting for the Effects of Regulation

TVA accounts for the financial effects of regulation in accordance with Statement of Financial Accounting Standards ("SFAS") No. 71, Accounting for the Effects of Certain Types of Regulation. As a result, TVA records certain regulatory assets and liabilities that would not be recorded under generally accepted accounting principles for non-regulated entities.

TVA has approximately \$1.9 billion of regulatory assets (see note 1 to the 1997 Financial Statements, "Other deferred charges" and "Debt issue and reacquisition costs") along with approximately \$6.3 billion of deferred nuclear plants as of September 30, 1997. In the event that competition in the utility industry changes the application of SFAS No. 71, TVA would be required to evaluate such regulatory assets under the provisions of SFAS No. 121, Accounting for the Impairment of Long-Lived Assets and Long-Lived Assets to be Disposed Of. Statement 121 establishes requirements for evaluating and measuring asset impairments and states that regulatory assets that are no longer probable of recovery through future revenues be charged to earnings. Such an event may have an adverse effect on future results of operations from the write-off of regulatory assets. However, TVA intends to seek full recovery of any regulatory assets that may result from TVA's transition to doing business in the competitive market.

### 1997 FINANCIAL STATEMENTS

TVA's audited financial statements for the fiscal year ended September 30, 1997 and the other periods indicated therein and the notes thereto are set forth below on pages C-19 to C-37.

## TENNESSEE VALLEY AUTHORITY POWER PROGRAM

### STATEMENTS OF INCOME For the years ended September 30, 1997, 1996 and 1995

	1997	1996 (in millions)	1995
OPERATING REVENUES			
Sales of electricity			
Municipalities and cooperatives	\$4,811	\$4,980	\$4,654
Industries directly served	464	452	460
Federal agencies	179	172	179
Other	98	89	82
Total operating revenues	5,552	5,693	5,375
OPERATING EXPENSES			
Fuel and purchased power, net	1,211	1,278	1,443
Operating and maintenance	1,201	1,218	1,050
Depreciation and amortization	1,014	904	703
Tax-equivalents	272	256	252
Total operating expenses	3,698	3,656	3,448
OPERATING INCOME	1,854	2,037	1,927
Other income (expense), net	157	(10)	(91)
Income before interest expense	2,011	2,027	1,836
Interest on debt	1.993	1.965	1.908
Amortization of debt discount, issue, and reacquisition costs, net	91	118	116
Allowance for funds used during construction	(81)	(117)	(198)
Net interest expense	2,003	1,966	1,826
Net income	\$ 8	\$ 61	\$ 10

### BALANCE SHEETS At September 30, 1997 and 1996

	Power F	Program	All Pro	grams
	1997	1996	1997	1996
		(in mil	lions)	
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents		\$ 238	\$ 374	\$ 318
Accounts receivable	701	680	707	689
Fuel	112	110	112	110
Other	287	278	287	278
Total current assets	1,399	1,306	1,480	1,395
PROPERTY, PLANT AND EQUIPMENT	,	,	,	,
Completed plant	28,528	27,955	29,632	29,069
Less accumulated depreciation	(7,178)			(6,854)
Net completed plant	21,350	21,402	22,163	22,215
Construction in progress	605	744	622	764
Deferred nuclear generating units	6,303	6,293	6,303	6,293
Nuclear fuel and capital leases	1,040	1,082	1,040	1,082
Total property, plant, and equipment	29,298	29,521	30,128	30,354
INVESTMENT FUNDS	561	440	561	440
DEFERRED CHARGES AND OTHER ASSETS  Loans and other long-term receivables	121	319	170	375
Debt issue and reacquisition costs	1,096	1,162	1,096	1,162
Other deferred charges	1,209	1,281	1,209	1,281
Total deferred charges and other assets	2,426	2,762	2,475	2,818
Total assets	\$33,684	\$34,029	\$34,644	\$35,007
			ΨΟΨ,ΟΨΨ	Ψοσ,σστ
LIABILITIES AND PROPRIETAR	RY CAPITA	<b>L</b>		
CURRENT LIABILITIES	ф 400	Φ 000	Φ 407	Φ 447
Accounts payable	\$ 468 161	\$ 392 187	\$ 487 172	\$ 417 196
Accrued interest	499	498	499	498
Discount notes	2,151	1,774	2,151	1,774
Current maturities of long-term debt	574	2,250	574	2,250
Total current liabilities	3,853	5,101	3,883	5,135
OTHER LIABILITIES	1,704	1,580	1,704	1,580
LONG-TERM DEBT	,	,	,	,
Public bonds — senior	20,354	19,403	20,354	19,403
Federal Financing Bank — senior	3,200	3,200	3,200	3,200
Public bonds — subordinated	1,100	1,100	1,100	1,100
Unamortized discount and other adjustments	(502)	(383)	(502)	(383)
Total long-term debt	24,152	23,320	24,152	23,320
PROPRIETARY CAPITAL				
Appropriation investment	588	608	4,887	4,800
Retained earnings reinvested in power program	3,387	3,420	3,387 (3,369)	3,420
Accumulated net expense of nonpower programs	2 075	4.000		(3,248)
Total proprietary capital	3,975	4,028	4,905	4,972
Total liabilities and proprietary capital	<u>\$33,684</u>	<u>\$34,029</u>	<u>\$34,644</u>	\$35,007

### STATEMENTS OF CASH FLOWS For the years ended September 30, 1997, 1996 and 1995

		Po	Power program				A	ا الا	programs			
		1997		1996		1995		1997		1996		1995
				(in millions)								
CASH FLOWS FROM OPERATING ACTIVITIES												
Net power income	\$	8	\$	61	\$	10	\$		\$	61	\$	10
Net expense of nonpower programs		_		_		_		(121)		(127)		(182)
Items not requiring (providing) cash		4 000		004		7.4.5		4 000		000		700
Depreciation and amortization Allowance for funds used during		1,066		924		715		1,080		938		728
construction		(81)		(117)	)	(198)		(81)		(117)		(198)
Nuclear fuel amortization		196		156		112		196		156		112
Other, net		(151)		162		72		(151)		164		142
Changes in current assets and liabilities		(24)		(1)	١	(E)		(01)		7		22
Accounts receivable		(24)		(1)		(5)		(21)		7		22
Inventories and other		(19)		(22)		(8)		(19)		(22)		(8)
Accounts payable and accrued liabilities		56 1		(246)	)	74		52 1		(250)		(36)
Accrued interest Other		14		43 (50)	١	31 (1)		14		43 (50)		31 (2)
	_		_	(30)	' —	(1)	_	14	_	(30)	_	(2)
Net cash provided by operating activities		1,066		910		802		958		803		619
CASH FLOWS FROM INVESTING												
ACTIVITIES		(700)		(4.407)		(4.000)		(700)		(4.404)	,	4 000)
Construction expenditures		(722)		(1,107)		(1,868)		(733)	(	(1,121)	(	(1,880)
construction		81		117		198		81		117		198
Nuclear fuel		(159)		(76)		(77)		(159)		(76)		(77)
Proceeds from sale of investments		513		(162)	)	(100)		513		(162)		(100)
Purchases of investments		(483)		_		_		(483)		_		
Proceeds from sale of loans receivable		211 (21)		(26)	١	(24)		211 (13)		(12)		(20)
Other, net	_	(21)	_	(26)	) —	(24)	_	(13)	_	(13)	_	(39)
Net cash used in investing activities		(580)		(1,254)	)	(1,871)		(583)	(	(1,255)	(	(1,898)
ACTIVITIES Long-term debt												
Issues		3,100		4,400		3,500		3,100		4,400		3,500
Redemptions		(3,829)		(2,706)	١	(2,503)		(3,829)		(2,706)	,	(2,503)
Short-term borrowings, net	'	(3,029) 377		(1,057)		222		(3,029)		(2,700) (1,057)	(	222
Borrowing expenses, net		(12)		(44)		(38)		(12)		(44)		(38)
Congressional appropriations		(12)		( + + ,	,	(00)		106		109		139
Payments to U.S. Treasury		(61)		(63)	)	(62)		(61)		(63)		(62)
	_	(01)	_	(00)	′ –	(02)	_	(01)		(00)		(02)
Net cash (used in) provided by financing activities	_	(425)	_	530	_	1,119		(319)	_	639		1,258
Net change in cash and cash												
equivalents		61		186		50		56		187		(21)
Cash at beginning of period	_	238	_	52	_	2		318	_	131		152
Cash at end of period	\$	299	\$	238	\$	52	\$	374	\$	318	\$	131
			_		=		_					

## STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL POWER PROGRAM

	For the Years Ended September 30,			
	1997	1996	1995	
		(in millions)		
Retained earnings reinvested at beginning of period	\$3,420	\$3,402	\$3,434	
Net income	8	61	10	
Return on appropriation investment	(41)	(43)	(42)	
Retained earnings reinvested at end of period	3,387	3,420	3,402	
Appropriation investment at beginning of period	608	628	648	
Return of appropriation investment	(20)	(20)	(20)	
Appropriation investment at end of period	588	608	628	
Proprietary capital at end of period	\$3,975	\$4,028	\$4,030	

## STATEMENTS OF NET EXPENSE NONPOWER PROGRAMS

	For the Years Ended September 30,		
	1997	1996	1995
		(in millions)	
Water and Land Stewardship	\$ 78	\$ 75	\$ 63
Land Between the Lakes	7	7	6
Economic Development	22	25	23
Environmental Research Center			21
Columbia Dam			69
Net expense	\$121	\$127	\$182

## STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL NONPOWER PROGRAMS

	For the Years Ended September 30,				
	1997 1996		1997 1996		1995
			(in n	nillions)	
Proprietary capital at beginning of period	\$	944	\$	964	\$1,007
Congressional appropriations		106		109	139
Net expense		(121)		(127)	(182)
Other, net		1		(2)	
Proprietary capital at end of period	\$	930	\$	944	\$ 964

# TENNESSEE VALLEY AUTHORITY NOTES TO FINANCIAL STATEMENTS

### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### General

TVA is a wholly owned corporate agency and instrumentality of the United States. It was established by the TVA Act with the objective of developing the resources of the Tennessee Valley region in order to strengthen the regional and national economy and the national defense by providing: (1) an ample supply of power within the region, (2) navigable channels and flood control for the Tennessee River System, and (3) agricultural and industrial development and improved forestry in the region. TVA carries out these regional and national responsibilities in a service area that centers on Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina and Virginia.

TVA's programs are divided into two types of activities — the power program and the non-power programs. Substantially all TVA revenues and assets are attributable to the power program. The power program is separate and distinct from the non-power programs and is required to be self-supporting from power revenues and funds borrowed from public markets. The power program receives no congressional appropriations and is required to make annual payments to the U.S. Treasury in repayment of, and as a return on, the government's appropriation investment in TVA power facilities. Most of the funding for TVA's non-power programs has been provided by congressional appropriations. Certain nonpower activities are also funded by various revenues and user fees. Financial accounts for the power and non-power programs are kept separately.

Power rates are established by the TVA Board of Directors as authorized by the TVA Act. The TVA Act requires TVA to charge rates for power that, among other things, will produce gross revenues sufficient to provide funds for operation, maintenance and administration of its power system; payments to states in lieu of taxes; and debt service on outstanding indebtedness.

### Fiscal year

Unless otherwise indicated, years (1997, 1996, etc.) refer to TVA's fiscal years ended September 30.

### Revenue recognition

Revenues from power sales are recorded as service is rendered to customers. TVA accrues estimated unbilled revenues for power sales provided to customers for the period of time from the end of the billing cycle to month-end.

### Property, plant, and equipment, and depreciation

Additions to plant are recorded at cost, which includes direct and indirect costs such as general engineering, a portion of corporate overhead and an allowance for funds used during construction. The cost of current repairs and minor replacements is charged to operating expense. The TVA Act requires TVA's Board of Directors to allocate the cost of completed multi-purpose projects between the power and non-power programs, subject to the approval of the President of the United States. The original cost of property retired, together with removal costs less salvage value, is charged to accumulated depreciation. Depreciation is generally computed on a straight-line basis over the estimated service lives of the various classes of assets. Depreciation expense expressed as a percentage of the average annual depreciable completed plant was 3.21 percent for 1997 and 1996 and 3.35 percent for 1995.

### **Decommissioning costs**

During 1997 the excess of decommissioning investment earnings over the annual decommissioning provision was recorded as other income. Of the total investment earnings of \$151 million, \$13 million was recorded as an offset to the decommissioning provision, with the \$138 million excess recorded as other income. During 1996 the annual decommissioning provision of \$30 million exceeded the earnings from decommissioning fund investments of \$17 million and the \$13 million excess was charged to depreciation expense. During 1995, investment earnings approximated decommissioning expense and no decommissioning charges were made to depreciation expense.

### Allowance for funds used during construction

The practice of capitalizing an allowance for funds used during construction is followed in the power program. The allowance is applicable to construction in progress excluding deferred nuclear generating units. In 1995, TVA changed its assumptions used in determining the interest rate used to calculate the allowance for funds used during construction. The change was made to more accurately reflect the nature of the indebtedness issued to fund construction. The effect of the change for 1995 was to increase the amount of interest capitalized by approximately \$56 million.

### Loans and other long-term receivables

In June 1997, TVA entered into a five-year agreement with a bank pursuant to which TVA agreed to sell certain receivables relating to TVA's consumer energy-conservation programs. As of September 30, 1997, a \$211-million pool had been sold for proceeds equal to its carrying amount. In accordance with Statement of Financial Accounting Standards (SFAS) No. 125, Accounting for Transfers and Servicing of Financial Assets and Extinguishment of Liabilities, the transaction has been reflected as a reduction of loans and other long-term receivables. Under the terms of the agreement, TVA has retained substantially the same risk of credit loss as if the receivables had not been sold and, accordingly, an appropriate liability account has been retained.

### Other deferred charges

Deferred charges primarily include prepaid pension costs and regulatory assets capitalized under the provisions of SFAS No. 71, *Accounting for the Effects of Certain Types of Regulation*. At September 30, 1997, other deferred charges included total unamortized regulatory assets of \$950 million — of which \$468 million represents a capitalized interest component of nuclear fuel; \$411 million represents a transition obligation related to the adoption of SFAS No. 112, *Employers Accounting for Postemployment Benefits*; and \$71 million represents TVA's portion of the costs for decommissioning the Department of Energy's nuclear waste disposal facility. At September 30, 1996, the unamortized balances of these three regulatory assets were \$595 million, \$446 million and \$81 million, respectively, for a total of \$1,122 million. These regulatory assets are being amortized over periods ranging from eight to 15 years, generally on a straight-line basis.

#### Investment funds

Investment funds consist primarily of a portfolio of investments in trusts designated for funding nuclear decommissioning requirements (see note 10). These funds, at September 30, 1997, were invested in portfolios generally designed to earn returns in line with overall equity market performance.

### Debt issue and reacquisition costs

Issue and reacquisition expenses, call premiums and other related costs are deferred and amortized (accreted), respectively, on a straight-line basis over the term of the related outstanding securities.

TVA has also incurred premiums related to certain advanced refundings. In accordance with regulatory practice, TVA has deferred these premiums and is amortizing them to expense ratably through the maturity dates of the new debt issues. The unamortized balances of such regulatory assets at September 30, 1997 and 1996, were \$983 million and \$1,042 million, respectively.

### Tax-equivalents

The TVA Act requires TVA to make payments to states and local governments in which the power operations of the corporation are conducted. The basic amount is 5 percent of gross revenues from the sale of power to other than federal agencies during the preceding year, with the provision for minimum payments under certain circumstances. Cash paid for tax-equivalents for 1997, 1996 and 1995 have been \$272 million, \$256 million and \$252 million, respectively.

### Interest and capital costs

During 1997, 1996 and 1995, cash paid for interest on outstanding indebtedness (net of amount capitalized) was \$1,911 million, \$1,805 million and \$1,678 million, respectively. In addition to paying interest on outstanding indebtedness, the TVA Act requires TVA to make annual payments to the U.S. Treasury. The annual Treasury payments represent a repayment of the original appropriation investment, along with a return on the appropriation investment. TVA paid \$20 million each year for 1997, 1996 and 1995 as a repayment of the appropriation investment. TVA paid \$41 million to the U.S. Treasury in 1997 as a return on the appropriation investment, while paying \$43 million in 1996 and \$42 million in 1995.

### **Risk-management activities**

TVA is exposed to market risk from changes in interest rates and currency exchange rates. To manage volatility relating to these exposures, TVA has entered into various derivative transactions, principally interest rate swap agreements and foreign currency swap contracts. TVA is exposed to credit losses in the event of nonperformance by counterparties on the risk-management instruments. TVA monitors such risk and does not believe that there is a significant risk of nonperformance by any of the parties of these instruments.

### Statements of cash flows

Cash and cash equivalents include the cash available in commercial bank accounts and U.S. Treasury accounts, as well as short-term securities held for the primary purpose of general liquidity. Such securities mature within the three months from the date of acquisition.

### Research and development costs

Expenditures related to research and development costs of new or existing products and processes are expensed as incurred. The amounts charged against income were \$44 million in 1997, \$45 million in 1996 and \$43 million in 1995.

### Insurance

TVA is primarily self-insured for property loss, workers' compensation, general liability and automobile liability. TVA is also self-insured for health care claims for eligible active and retired employees.

Consulting actuaries assist TVA in determining its liability for self-insured claims. TVA maintains nuclear liability insurance with an outside party (see note 10).

### Management estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the related amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

### 2. NUCLEAR POWER PROGRAM

The nuclear power program at September 30, 1997, consisted of nine units — five operating, three deferred, and one inoperative — at four locations, with investments in property, plant and equipment as follows and in the status indicated:

	Operating units	Installed capacity (megawatts)	Completed plant, net (in millio	Construction in progress ns)	Deferred	Fuel investment
Browns Ferry	2	2,304	\$ 3,508	\$ 44	\$ —	\$289
Sequoyah	2	2,442	2,055	77	_	146
Watts Bar	1	1,270	6,674	34	1,716	108
Bellefonte	_	_	_	_	4,587	
Raw materials						297
Total	<u>5</u>	6,016	\$12,237	\$155	\$6,303	\$840

Browns Ferry 3, taken off-line in March 1985 for plant modifications and regulatory improvements, was returned to service in 1996. Browns Ferry 1, also taken off-line in 1985 for modifications and improvements, will continue to remain in an inoperative status until its ultimate disposition is determined. For financial reporting purposes, the undepreciated cost of Browns Ferry 1 of \$80 million is included in net completed plant and is being depreciated as part of the recoverable cost of the plant over the remaining license period.

Watts Bar 1 began operating commercially during 1996. In 1988, TVA suspended construction activities on Watts Bar 2, and the unit is currently in lay-up. Bellefonte 1 and 2 were deferred in 1988 and 1985, respectively. Estimated 1998 expenditures for the three deferred units total \$9 million and are limited to lay-up, maintenance and ensuring that options remain viable.

In 1993, TVA began an integrated resource planning process to determine TVA's strategy for meeting future customer energy demands. As part of this long-term energy strategy, TVA re-evaluated the need for finishing Bellefonte 1 and 2 and Watts Bar 2 as nuclear units. In December 1994, TVA determined it will not, by itself, complete Bellefonte 1 and 2 and Watts Bar 2 as nuclear units. In the Integrated Resource Plan (IRP), TVA determined that it would study the potential for converting the Bellefonte Nuclear Plant to a combined cycle plant utilizing natural gas or gasified coal as the primary fuel and/or joint venturing with a partner for completion. The feasibility of converting Bellefonte to such an alternate fuel will require in-depth engineering and financial analyses; and accordingly, TVA is utilizing a team of technical and financial experts. The IRP also concluded that Watts Bar 2 should remain in deferred status until completion of the Bellefonte study. The impact on TVA's financial position of completing, converting or joint venturing these units will be determined upon completion of the Bellefonte study. The future decisions on these units will ultimately impact the method of cost recovery, and the TVA

Board has determined that it will, at that time, establish rate adjustments and operating policies to ensure full recovery of the cost of these units and compliance with the requirements of the TVA Act. For financial reporting purposes, the cost of the three units is presented as deferred nuclear generating units.

### 3. COMPLETED PLANT

Completed plant consists of the following at September 30:

	1997			1996			
Power program	Cost	Accumulated depreciation	Net	Cost	Accumulated depreciation	Net	
		(in millions)					
Fossil plants	\$ 7,427	\$2,954	\$ 4,473	\$ 7,320	\$2,790	\$ 4,530	
Nuclear plants	14,514	2,277	12,237	14,370	1,835	12,535	
Transmission	3,144	982	2,162	2,911	943	1,968	
Hydro plants	1,382	471	911	1,273	454	819	
Other	2,061	<u>494</u>	1,567	2,081	531	1,550	
Total Power	\$28,528	<u>\$7,178</u>	\$21,350	<u>\$27,955</u>	<u>\$6,553</u>	\$21,402	

#### 4. LEASES

Certain property, plant and equipment are leased under agreements with terms ranging from one to 30 years. Most of the agreements include purchase options or renewal options that cover substantially all the economic lives of the properties. Obligations under capital lease agreements in effect at September 30 were:

Fiscal year		
	(in millions)	
1998		
1999	36	
2000	36	
2001		
2002		
Thereafter	301	
Total future minimum lease payments	481	
Less interest element	(280)	
Present value of future minimum lease payments	\$ 201	

### 5. APPROPRIATION INVESTMENT — POWER PROGRAM

The TVA Act requires TVA to make annual payments to the U.S. Treasury from net power proceeds. The payments required by the TVA Act may be deferred under certain circumstances for not more than two years. The return is based on the appropriation investment as of the beginning of the year and the computed average interest rate payable by the U.S. Treasury on its total marketable public obligations as of the same date (6.71 percent at September 30, 1997).

### 6. DEBT

### **Borrowing Authority**

The TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness up to a total of \$30 billion outstanding at any one time. TVA must meet certain cash flow and earnings tests that are contained in the TVA Act and the Basic TVA Power Bond Resolution. Debt service on these obligations, which is payable solely from TVA's net power proceeds, has precedence over the payment to the U.S. Treasury described in note 5.

### **Debt outstanding**

Debt outstanding at September 30, 1997 and 1996 (excluding defeased debt of \$950 million at September 30, 1996, which is not considered by TVA to be debt that is subject to the \$30 billion bond limit), consisted of the following:

	1997	1996
	(in millions)	
SHORT-TERM DEBT		
Held by the public		
Discount notes (net of discount)	\$ 2,151	\$ 1,774
Current maturities of long-term debt — 5.07% to 5.98%		2,250
Total short-term debt	2,725	4,024
LONG-TERM DEBT	,	,
Held by the public — senior		
Maturing in 1998	_	1,453
Maturing in 1999 — 5.88% to 6.58%	2,450	750
Maturing in 2000 — 8.375%	1,000	1,000
Maturing in 2001 — 6.00% to 6.50%	1,800	1,250
Maturing in years 2002 through 2045 — 6.125% to 8.625%	15,104	14,950
Held by Federal Financing Bank — senior		
Maturing in 2003 through 2016 — 8.535% to 11.695%	3,200	3,200
Held by the public — subordinated		
Maturing in 2045 through 2046 — 7.50% to 8.00%	1,100	1,100
Total long-term debt	24,654	23,703
Unamortized discount and other adjustments	(502)	(383)
Net long-term debt	24,152	23,320
Total debt	\$26,877	\$27,344
Total uebt	φ20,011	ΨΔ1,344

### Short-term debt

The weighted average rates applicable to short-term debt outstanding in the public market as of September 30, 1997 and 1996, were 5.56 percent and 5.38 percent, respectively. During 1997, 1996 and 1995, the maximum outstanding balance of short-term borrowings held by the public was (in millions) \$3,962, \$3,537 and \$3,503 respectively, and the average amounts (and weighted average interest rates) of such borrowings were approximately (in millions), \$2,743 (5.47 percent), \$2,692 (5.50 percent) and \$2,743 (5.83 percent), respectively.

### Put and call options

Bond issues of \$12.8 billion held by the public are redeemable in whole or in part, at TVA's option, on call dates ranging from the present to April 2012 at call prices ranging from 100 percent to 106.7 percent of the principal amount. Additionally, TVA has bond issues of \$2.1 billion held by the public that are redeemable in whole or in part at the option of the respective bondholders. One bond issue totaling \$500 million, which matures in July 2045, is redeemable in 2001 by the bondholders. A second issue totaling \$121.3 million, which matures in April 2036, is redeemable in 1998 or 2006 at the option of the bondholders and a third issue totaling \$1.5 billion, which matures in April 2036, is redeemable in 1999 or 2006 at the option of the bondholders. All of these issues are reported in the debt schedule with maturity dates corresponding to the earliest redeemable dates.

Subsequent to September 30, 1997, TVA monetized the call provisions on approximately \$1 billion of public bond issues. The premium received by TVA has been deferred and is being amortized over the term of the agreements.

### Bond discount and premium

Discounts and premiums on power borrowings are deferred and amortized (accreted), respectively, as components of interest expense on a straight-line basis over the term of the related outstanding securities.

### Foreign currency transaction and interest rate swap

During 1996, TVA entered into a currency swap contract as a hedge for a foreign currency denominated debt transaction where TVA issued 1.5 billion Deutschemark bonds, the cash flows of which were swapped for those of a U.S. dollar obligation of \$1 billion. Any gain (loss) on the debt instrument due to the foreign currency transaction is offset by a loss (gain) on the swap contract. At September 30, 1997 and 1996 the currency transaction resulted in gains of \$131 million and \$16 million, respectively, which are included in the account "unamortized discount and other adjustments." The offsetting loss on the swap contract is recorded as a deferred liability. If any loss/gain were to be incurred as a result of the early termination of the swap contract, any resulting charge (income) would be amortized over the remaining life of the bond as a component of interest expense.

Additionally, TVA entered into a 10-year fixed rate interest swap agreement with a notional amount of \$300 million. Such agreement was entered into to hedge TVA's inflation exposure related to its inflation-indexed accreting principal bonds.

### 7. FAIR VALUE OF FINANCIAL INSTRUMENTS

TVA uses the methods of assumptions described below to estimate the fair values of each significant class of financial instrument.

### Cash and cash equivalents, and short-term debt

The carrying amount approximates fair value because of the short-term maturity of these instruments.

### Investment funds

At September 30, 1997, these investments were classified as trading securities and carried at their fair value.

### Loans and other long-term receivables

Fair values for these homogeneous categories of loans and receivables are estimated by determining the present value of future cash flows using the current rates at which similar loans are presently made to borrowers with similar credit ratings and for the same remaining maturities.

#### **Bonds**

Fair value of long-term debt traded in the public market is determined by multiplying the par value of the bonds by the quoted market price (asked price) nearest the balance sheet date. The fair value of other long-term debt and long-term debt held by the Federal Financing Bank is estimated by determining the present value of future cash flows using rates of financial instruments with quoted market prices of similar characteristics and the same remaining maturities.

The estimated values of TVA's financial instruments at September 30 are as follows:

	1997	,	1996			
	Carrying Amount	Fair Amount	Carrying Amount	Fair Amount		
		(in mi				
Cash and cash equivalents	\$ 374	\$ 374	\$ 318	\$ 318		
Investment funds	561	561	440	440		
Loans and other long-term						
receivables	170	160	375	365		
Short-term debt	2,151	2,151	1,774	1,774		
Long-term debt, including						
current maturities	25,228	26,127	25,953	26,562		

The fair market value of the financial instruments held at September 30, 1997, may not be representative of the actual gains or losses that will be recorded when these instruments mature or if they are called or presented for early redemption.

#### 8. BENEFIT PLANS

### Pension plan

TVA has a defined benefit plan for most full-time employees that provides two benefit structures, the Original Benefit Structure and the Cash Balance Benefit Structure. The plan assets are primarily stocks and bonds. TVA contributes to the plan such amounts as are agreed upon between TVA and the TVA Retirement System board of directors, which in no event would be less than the amount necessary on an actuarial basis to provide assets sufficient to meet obligations for benefits. The pension benefit for participants in the Original Benefit Structure is based on the member's years of creditable service, average base pay for the highest three consecutive years and the pension rate for the member's age and years of service, less a Social Security offset.

The Cash Balance Benefit Structure was implemented January 1, 1996. The pension benefit for participants in the Cash Balance Benefit Structure is based on credits accumulated in the member's account and member's age. A member's account receives credits each pay period equal to 6 percent of his or her straight-time earnings. The account also increases at an interest rate equal to the change in the

Consumer Price Index plus 3 percent, which amounted to 5.82 percent for both 1997 and 1996. The components of pension expenses for the years ended September 30 were:

	1997	1996 (in millions)	1995	
PENSION EXPENSE: Service cost	\$ 70 308	\$ 72 309	\$ 62 304	
Actual return on assets	(1,334)	(616) 217	(816) <u>450</u>	
Net pension (income) expense	<u>\$ (57)</u>	<u>\$ (18)</u>	<u> </u>	
FUNDED STATUS: Actuarial present value of benefit obligations:				
Vested benefit obligation	\$(3,770) <u>(48</u> )	\$(3,506) <u>(50</u> )	\$(3,256) (113)	
Accumulated benefit obligation Effects of projected future compensation	(3,818) <u>(391</u> )	(3,556) <u>(401</u> )	(3,369) (323)	
Projected benefit obligation	(4,209) 5,962	(3,957) <u>4,851</u>	(3,692) <u>4,375</u>	
Excess of plan assets over projected benefit obligation  Unrecognized net gain  Unrecognized net obligation being amortized over 15 years	1,753 (1,536)		683 (627)	
beginning October 1, 1987  Prepaid pension cost	<u> </u>	<u>2</u> \$ 126	<u>2</u> \$ 58	
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The discount rate used to determine the actuarial present value of the projected benefit obligation was 8.0 percent in 1997 and 1996 and 7.5 percent in 1995. The assumed annual rates of increase in future compensation levels for 1997, 1996, and 1995 ranged from 3.3 to 8.3 percent. The expected long-term rate of return on plan assets was 11 percent for 1997, 1996 and 1995.

### Other postretirement benefits

TVA sponsors an unfunded defined benefit postretirement plan that provides for contributions toward the cost of retirees' medical coverage. The plan covers employees who, at retirement, are age 60 and older (or who are age 50 and have at least five years of service). TVA's contributions are a flat dollar amount based upon the participants' age and years of service and certain payments toward the plan costs.

The annual assumed cost trend for covered benefits is 10.5 percent in 1997, decreasing by one-half percent per year reaching 5.0 percent in 2008 and thereafter. For 1996 and 1995, an annual trend rate of 11.0 percent and 11.5 percent, respectively, was assumed. The effect of the change in assumptions on a cost basis was not significant. Increasing the assumed health-care cost trend rates by 1 percent would increase the accumulated postretirement benefit obligation (APBO) as of September 30, 1997, by \$15 million and the aggregate service and interest cost components of net periodic postretirement benefit cost for 1997 by \$3 million.

The weighted average discount rate used in determining the APBO was 8.0 percent for 1997 and 1996, and 7.5 percent for 1995. Any net unrecognized gain or loss resulting from experience different from that assumed or from changes in assumptions, in excess of 10 percent of the APBO, is amortized

over the average remaining service period of active plan participants. The following sets forth the plan's funded status at September 30:

	1997	1996	1995
	(in millions)		
ACCUMULATED POSTRETIREMENT BENEFIT OBLIGATION (APBO)			
Retirees	\$220	\$230	\$214
Fully eligible active plan participants	2	4	1
Other active plan participants	126	_187	116
APBO	348	421	331
Unrecognized net (loss) gain		<u>(95</u> )	_(15)
Accrued postretirement benefit cost	\$348	\$326	\$316
NET PERIODIC POSTRETIREMENT BENEFIT COST			
Service cost	\$ 13	\$ 8	\$ 7
Interest cost	32	24	26
Amortization of loss	4	_	_
Net periodic postretirement benefit cost	\$ 49	\$ 32	\$ 33

### Other postemployment benefits

Statement of Financial Accounting Standards No. 112, *Employers Accounting for Postemployment Benefits* (SFAS No. 112), applies to postemployment benefits, including workers' compensation provided to former or inactive employees, their beneficiaries and covered dependents after employment but before retirement. Adoption of SFAS No. 112 in 1995 changed TVA's method of accounting from recognizing costs as benefits are paid to accruing the expected costs of providing these benefits. This resulted in recognition of an original transition obligation of approximately \$280 million. During 1996, TVA made adjustments to certain assumptions utilized in the determination of the obligation at September 30, 1996, which resulted in an increase in the original transition obligation of approximately \$194 million. In connection with the adoption of SFAS No. 112, and related approval by its Board of Directors, TVA recorded the transition obligation as a regulatory asset. The regulatory asset is being amortized over approximately 15 years, whereby the annual expense will approximate the expense that would be recorded on an as-paid basis.

#### Early-Out and accelerated severance packages

In 1997, 1996 and 1995 TVA provided both voluntary and involuntary severance packages, which affected an aggregate of approximately 4,900 employees. During this period, severance costs totaled approximately \$196 million and consisted primarily of severance pay (\$150 million) and other retirement and postretirement benefits (\$46 million). Also during 1997 TVA recognized a related pension curtailment gain of \$27 million. The aggregate costs of the severance packages have been charged to the power program primarily as other expense during 1997, 1996 and 1995 in the amounts of \$11 million, \$35 million and \$136 million, respectively, and the non-power program as non-power expense during 1997 and 1996 in the amounts of \$8 million and \$6 million, respectively.

### 9. MAJOR CUSTOMERS

One municipal customer accounts for approximately 9 percent of total power sales and four other municipal customers account for an additional aggregate 19 percent of total power sales. These five municipal customers purchase power from TVA under long-term contracts for terms of 20 years, which require 10-years notice to terminate.

# 10. CONSTRUCTION EXPENDITURES AND COMMITMENTS AND CONTINGENCIES Construction expenditures

Construction expenditures, including capitalized interest, are estimated to be approximately \$732 million for 1998 and \$659 million for 1999. These estimates are revised periodically to reflect changes in economic conditions and other factors considered in their determination.

#### **Purchase commitments**

TVA has entered into approximately \$2.3 billion in long-term commitments ranging in terms of up to eight years for the purchase of coal.

### **Contingencies**

Nuclear Insurance. The Price-Anderson Act sets forth an indemnification and limitation of liability plan for the U.S. nuclear industry. All Nuclear Regulatory Commission (NRC) licensees, including TVA, maintain nuclear liability insurance in the amount of \$200 million for each plant with an operating license. The second level of financial protection required is the industry's retrospective assessment plan, using deferred premium charges. The maximum amount of the deferred premium for each nuclear incident is approximately \$79 million per reactor, but not more than \$10 million per reactor may be charged in any one year for each incident. TVA could be required to pay a maximum of \$474 million per nuclear incident on the basis of its six licensed units, but it would have to pay no more than \$60 million per incident in any one year.

In accordance with NRC regulations, TVA carries property and decontamination insurance of \$1.06 billion at each licensed nuclear plant for the cost of stabilizing or shutting down a reactor after an accident. Some of this insurance may require the payment of retrospective premiums of up to a maximum of approximately \$34 million.

Clean Air legislation. The Clean Air Act Amendments of 1990 require fossil-fuel fired generation units to reduce their sulfur dioxide and nitrogen oxide emissions in two phases in order to control acid rain. The Phase I compliance period commenced on January 1, 1995, for sulfur dioxide and January 1, 1996, for nitrogen oxide, while the Phase II compliance period commences on January 1, 2000. Based on the level of emissions, 26 of TVA's 59 operating coal-fired units are classified as Phase I units, with the remaining units being Phase II units. Compliance with these requirements has resulted in substantial expenditures for the reduction of emissions at TVA's coal-fired generating plants.

TVA's compliance strategy to reduce sulfur dioxide emissions includes the use of scrubbers at six fossil units and use of lower-sulfur coal at the remaining 53 fossil units. TVA has completed all planned scrubbers and is on schedule to complete the change-over to lower-sulfur coal.

Nitrogen oxide reductions are required for 19 of TVA's Phase I units. These reductions were achieved through the installation of low-nitrogen-oxide burners at 13 units. TVA is in compliance with all Phase I requirements and is currently installing nitrogen oxide reduction equipment to bring TVA's remaining units in compliance with Phase II nitrogen oxide emission requirements.

Expenditures related to the Clean Air projects during 1997 and 1996 were approximately \$40 million and \$80 million, respectively. TVA has already completed the actions necessary to achieve Phase I compliance for both sulfur dioxide and nitrogen oxide emissions, and TVA is proceeding to take actions to comply with Phase II requirements that become effective in the year 2000 or after. The total cost of compliance cannot reasonably be determined at this time because of the uncertainties surrounding final Environmental Protection Agency regulations, resultant compliance strategy, potential for development of new emission control technologies and future amendments to the legislation.

### NOTES TO FINANCIAL STATEMENTS — (Continued)

Hazardous substances. The release and cleanup of hazardous substances are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act. In a manner similar to other industries and power systems, TVA has generated or used hazardous substances over the years. TVA has been identified as a potentially responsible party with respect to three off-site disposal areas. TVA's liability at these sites has not yet been determined. In addition, TVA is currently investigating two other sites that TVA either owns or partially owns. TVA may have cleanup responsibilities at those sites by virtue of its control of the property. TVA's potential liabilities for its share of cleanup costs at these sites are uncertain but are not expected to be substantial.

*Pending litigation.* TVA is a party to various civil lawsuits and claims that have arisen in the ordinary course of its business. Although the outcome of pending litigation cannot be predicted with any certainty, it is the opinion of TVA counsel that the ultimate outcome should not have a material adverse effect on TVA's financial position or results of operations.

Decommissioning costs. Provision for decommissioning costs of nuclear generating units is based on the estimated cost to dismantle and decontaminate the facilities to meet NRC criteria for license termination. At September 30, 1997, the present value of the estimated future decommissioning cost of \$318 million was included in other liabilities. The decommissioning cost estimates from a 1995 study are based on prompt dismantlement and removal of the plant from service. The actual decommissioning costs may vary from the estimates because of changes in the assumed dates of decommissioning, changes in regulatory requirements, changes in technology and changes in costs of labor, materials and equipment.

TVA maintains an investment trust fund to provide funding for the decommissioning of nuclear power plants. In September 1993, TVA sold the investment portfolio and realized a gain of \$163 million. TVA recognized \$82 million of this gain in 1994 and \$81 million in 1995. During 1996, TVA took a number of related actions to establish a decommissioning fund that could reasonably be expected to provide substantially all of the funding required for decommissioning. TVA contributed an additional \$123 million, and separate decommissioning trusts were established for each of TVA's nuclear plants. As of September 30, 1996, the entire fund was invested in equity market index funds.

In May 1997, TVA sold the entire \$402 million equity index fund portfolio and transferred the proceeds to trust portfolios managed by independent money managers. During 1997, TVA recognized \$151 million of income related to the fund, which included an \$81 million gain on the sale of fund investments and \$70 million in net appreciation and interest income. As of September 30, 1997, the decommissioning trust fund investments totaled \$553 million and were invested in securities designed to achieve a return in line with overall equity market performance.

Cost-based regulation. As a regulated entity, TVA is subject to the provisions of SFAS No. 71, Accounting for the Effects of Certain Types of Regulation. Accordingly, TVA records certain assets and liabilities that result from the effects of the ratemaking process that would not be recorded under generally accepted accounting principles for non-regulated entities. Currently, the electric utility industry is predominantly regulated on a basis designed to recover the cost of providing electric power to its customers. If cost-based regulation were to be discontinued in the industry for any reason, profits could be reduced and utilities might be required to reduce their asset balances to reflect a market basis less than cost. Discontinuance of cost-based regulation would also require affected utilities to write off their associated regulatory assets. Such regulatory assets for TVA total approximately \$1.9 billion at September 30, 1997, along with approximately \$6.3 billion of deferred nuclear plants. Management cannot predict the potential impact, if any, of these competitive forces on TVA's future financial position and results of operations. However, TVA continues to position itself to effectively meet these challenges by maintaining prices that are locally, regionally and nationally competitive.

#### 11. NON-POWER PROGRAMS

TVA's non-power programs provide various public services, including managing navigable river channels, providing flood control and overseeing certain recreation facilities. The non-power programs encompass general stewardship of land, water and wildlife resources. TVA's non-power programs also conduct certain research and development activities in pollution prevention and remediation.

Funding for the non-power programs is primarily provided through federal appropriations. During 1997 and 1996, the non-power programs received appropriations of \$106 million and \$109 million, respectively. The 1998 appropriations bill approved \$70 million for non-power programs in 1998 and anticipates no further appropriation to TVA thereafter. Certain non-power-program activities are also funded by user fees and outside services revenues. Notwithstanding the historical separation of the power and non-power programs and provisions of the TVA Act and bond covenants to the contrary, public law authorizes TVA to use power revenues to pay for non-power activities beginning in 1999.

During 1995, the non-power programs had a net expense of \$182 million, which included a \$69 million charge for the write-off of the Columbia Dam and Reservoir project. The Columbia Dam and Reservoir, a multi-purpose project financed by congressional appropriations, was suspended in prior years due to budget restrictions and environmental concerns. During 1995, TVA determined that the Columbia Dam would not be completed, and accordingly, the project cost was expensed.

The completed plant of the non-power programs consists of multipurpose dams and other plant. At September 30, 1997, the net completed plant balances for multipurpose dams and other plant were \$700 million and \$113 million, respectively. At September 30, 1996, the net completed plant balances for multipurpose dams and other plant were \$705 million and \$108 million, respectively.

# REPORT OF INDEPENDENT ACCOUNTANTS

To the Board of Directors of the Tennessee Valley Authority

We have audited the accompanying balance sheets (power program and all programs) of the Tennessee Valley Authority as of September 30, 1997 and 1996, and the related statements of income (power program), changes in proprietary capital (power program and non-power programs), net expense (non-power programs) and cash flows (power program and all programs) for each of the three years in the period ended September 30, 1997. These financial statements are the responsibility of the Tennessee Valley Authority's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and Government Auditing Standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the power program and all programs of the Tennessee Valley Authority as of September 30, 1997 and 1996, the results of operations of the power program and non-power programs and cash flows of the power program and all programs for each of the three years in the period ended September 30, 1997, in conformity with generally accepted accounting principles.

As discussed in note 8 to the financial statements, in 1995 the Tennessee Valley Authority adopted Statement of Financial Accounting Standard No. 112, *Employers Accounting for Postemployment Benefits*.

In accordance with Government Auditing Standards, we have also issued a report, dated October 23, 1997, on our consideration of the Tennessee Valley Authority's internal controls over financial reporting and our tests of compliance with certain provisions of laws, regulations, contracts and grants.

/s/ COOPERS & LYBRAND L.L.P.

Coopers & Lybrand L.L.P.

Knoxville, Tennessee October 23, 1997

## REPORT OF MANAGEMENT

Management is responsible for the preparation, integrity and objectivity of the financial statements of the Tennessee Valley Authority as well as all other information contained in the annual report. The financial statements have been prepared in conformity with generally accepted accounting principles applied on a consistent basis and, in some cases, reflect amounts based on the best estimates and judgments of management, giving due consideration to materiality. Financial information contained in the annual report is consistent with that in the financial statements.

The Tennessee Valley Authority maintains an adequate system of internal controls to provide reasonable assurance that transactions are executed in accordance with management's authorization, that financial statements are prepared in accordance with generally accepted accounting principles, and that the assets of the corporation are properly safeguarded. The system of internal controls is documented, evaluated, and tested on a continuing basis. No internal control system can provide absolute assurance that errors and irregularities will not occur due to the inherent limitations of the effectiveness of internal controls; however, management strives to maintain a balance, recognizing that the cost of such a system should not exceed the benefits derived. No material internal control weaknesses have been reported to management.

Coopers & Lybrand L.L.P. was engaged to audit the financial statements of the Tennessee Valley Authority and issue reports thereon. Its audits were conducted in accordance with generally accepted auditing standards. Such standards require a review of internal controls and an examination of selected transactions and other procedures sufficient to provide reasonable assurance that the financial statements neither are misleading nor contain material errors. The Report of Independent Accountants does not limit the responsibility of management for information contained in the financial statements and elsewhere in the annual report.

/s/ DAVID N. SMITH

David N. Smith
Chief Financial Officer and
Executive Vice President
of Financial Services

# **DESCRIPTION OF BONDS**

## General

The Bonds are to be issued pursuant to authority vested in TVA by the Act and pursuant to the Basic Tennessee Valley Authority Power Bond Resolution adopted on October 6, 1960, as amended on September 28, 1976, October 17, 1989 and March 25, 1992 (the "Basic Resolution"), and the Supplemental Resolution authorizing the Bonds adopted on January 7, 1998 (the "Supplemental Resolution" and together with the Basic Resolution, the "Resolutions"). TVA has entered into a Fiscal Agency Agreement, dated as of October 7, 1997 (the "Fiscal Agency Agreement"), with the Federal Reserve Banks, as fiscal agents (together, the "Fiscal Agent"). The Secretary of the Treasury has approved the time of issuance of, and the maximum rate of interest to be borne by, the Bonds in compliance with Section 15d(c) of the Act. The Bonds represent obligations of TVA payable solely from TVA's Net Power Proceeds and are not obligations of, or guaranteed by, the United States of America.

The Act authorizes TVA to issue and sell bonds, notes and other evidences of indebtedness (hereinafter collectively referred to as "Evidences of Indebtedness") to assist in financing its power program and to refund such Evidences of Indebtedness. Evidences of Indebtedness issued pursuant to Section 2.2 of the Basic Resolution designated as Tennessee Valley Authority Power Bonds are herein referred to as "Power Bonds". The aggregate amount of Evidences of Indebtedness at any one time outstanding is limited to \$30 billion. As of September 30, 1997, TVA had approximately U.S.\$27.4 billion and DM1.5 billion (issued in September 1996) of Evidences of Indebtedness outstanding. At the time TVA issued such DM Evidences of Indebtedness, TVA entered into a currency swap agreement to hedge against fluctuations in such currency. For information with respect to TVA's Power Bonds and the Basic Resolution, see "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness"— "Issuance of Additional Bonds and Other Evidences of Indebtedness" in the current Information Statement.

The summaries herein of certain provisions of the Act, the Resolutions and the Fiscal Agency Agreement do not purport to be complete and are qualified in their entirety by reference to all the provisions of the Act, the Resolutions and the Fiscal Agency Agreement, copies of which may be obtained upon written request directed to Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902, Attention: Vice President and Treasurer, or by calling (423) 632-3366.

The Bonds will be Power Bonds as defined above and will be payable as to both principal and interest solely from TVA's Net Power Proceeds, which are defined as the remainder of TVA's Gross Power Revenues (as defined in the Basic Resolution) after deducting the costs of operating, maintaining, and administering its power properties (including multiple-purpose properties in the proportion that multiple-purpose costs are allocated to power) and payments to states and counties in lieu of taxes, but before deducting depreciation accruals or other charges representing the amortization of capital expenditures, plus the net proceeds of the sale or other disposition of any Power Facility (as defined in the Basic Resolution) or interest therein. The Act also requires TVA to make certain payments to the Treasury each year from Net Power Proceeds in excess of those required for debt service as a return on and reduction of the Appropriation Investment (as defined in the Basic Resolution). See "Certain Provisions of the Tennessee Valley Authority Act" — "Payments to the Treasury" in the current Information Statement.

The Bonds rank equally as to the application of Net Power Proceeds with all other Power Bonds. As to the application of Net Power Proceeds, Power Bonds presently rank senior to other Evidences of Indebtedness as to principal and on parity with or senior to other Evidences of Indebtedness as to interest. At some future date prior to maturity of the Bonds, Evidences of Indebtedness other than Power Bonds may also rank on parity with Bonds as to principal. See "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" — "Amendments to the Basic Resolution to Become Effective in the Future" in the current Information Statement. For a further discussion of the application of Net Power Proceeds, see "Certain Provisions of the Tennessee Valley Authority Act" and "The Basic

Resolution; Power Bonds, Discount Notes and Other Indebtedness'' — "Application of Net Power Proceeds" in the current Information Statement.

There is no limit on other indebtedness or securities which may be issued by TVA and no financial or similar restrictions on TVA, except as provided under the Act, the Basic Resolution and the Supplemental Resolution. TVA issues its Discount Notes pursuant to Section 15d of the Act and in accordance with Section 2.5 of the Basic Resolution. TVA may also issue Other Indebtedness in addition to Power Bonds and Discount Notes. Other Indebtedness, such as TVA's Quarterly Income Debt Securities, are issued pursuant to Section 15d of the Act and under appropriate authorizing resolutions. See "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" in the current Information Statement.

Under the Supplemental Resolution, actions taken by TVA pursuant to Public Law No. 105-62 shall not be considered an event of default or a breach of the Resolutions. See the discussion of Public Law No. 105-62 in "Recent Developments" — "Other Matters".

## Possible Future Issuances

The Supplemental Resolution provides that, at the option of TVA, additional Bonds may be issued in one or more future installments pursuant to an amendment to the Supplemental Resolution not requiring the consent of holders of Bonds. Additional Bonds so issued shall be identical in all respects to the Bonds offered hereby (with any related changes in the issue date, issue price, and interest commencement date).

# **Payment of Principal and Interest**

The Bonds will consist of \$1,000,000,000,000 aggregate principal amount of 6.15% Power Bonds 1998 Series B Due January 15, 2038 (the "Maturity Date"). The Bonds will be issued in minimum denominations of \$1,000 and integral multiples thereof in book-entry form only through the Federal Reserve Banks as described below under "Book-Entry System". Interest will be payable semi-annually in arrears on January 15 and July 15 (each an "Interest Payment Date") commencing July 15, 1998. Such interest payments will include any interest accrued from and including January 15, 1998 or the preceding Interest Payment Date, as the case may be, to but excluding the relevant Interest Payment Date. Interest shall be computed on the basis of a 360-day year of twelve 30-day months. The principal amount of all Bonds, together with the interest accrued and unpaid thereon, is due in full, on the Maturity Date. Payments of principal and interest on the Bonds will be made on the applicable payment dates to Holders (as such term is defined under "Book-Entry System") of the Bonds which are Holders as of the close of business on the Business Day preceding such payment dates, by credit of the payment amount to the Holders' accounts at the Federal Reserve Banks. The Holder and each other financial intermediary in the chain to the beneficial owner will have the responsibility of remitting payments for the accounts of their customers.

In any case in which an Interest Payment Date or the Maturity Date is not a Business Day, payment of principal or interest, as the case may be, shall be made on the next succeeding Business Day with the same force and effect as if made on such Interest Payment Date or the Maturity Date. The term "Business Day" shall mean any day other than a Saturday or Sunday or a day on which banking institutions in New York City are authorized or required by law or executive order to be closed.

# Redemption

The Bonds offered hereby will not be subject to redemption prior to maturity.

# **Book-Entry System**

The Bonds will be issued and maintained and may be transferred only on the book-entry system of the Federal Reserve Banks in minimum principal amounts of \$1,000 and additional integral multiples thereof. The Federal Reserve Banks will maintain book-entry accounts with respect to the Bonds and will make payments, on behalf of TVA, of interest on and principal of the Bonds on the applicable payment dates by crediting Holders' accounts at the Federal Reserve Banks. The Bonds will not be exchangeable for definitive securities.

The foregoing paragraph is a summary of certain provisions of the Fiscal Agency Agreement and does not purport to be a complete statement of all the provisions of such agreement.

Regulations governing the use of the book-entry system for the Bonds are contained in 18 C.F.R. Part 1314, as modified by amendments contained in 62 Federal Register 29287-29288 (May 30, 1997). These regulations and procedures relate primarily to the registration, transfer, exchange and pledge of such obligations. The accounts of Holders on the Federal Reserve Banks' book-entry system are governed by applicable operating circulars of the Federal Reserve Banks. The Federal Reserve Banks' handling of, and rights, duties and obligations with respect to, the Bonds will be governed exclusively by the applicable operating circulars of the Federal Reserve Banks, TVA's book-entry regulations and such other Federal book-entry regulations as may be applicable, notwithstanding any inconsistent procedures or requirements of any depository or organized exchange.

The Bonds may be held of record only by entities eligible to maintain book-entry accounts with the Federal Reserve Banks. Such entities whose names appear on the book-entry records of a Federal Reserve Bank as the entities for whose accounts the Bonds have been deposited are herein referred to as "Holders". A Holder is not necessarily the beneficial owner of a Bond. Beneficial owners will ordinarily hold Bonds through one or more financial intermediaries, such as banks, brokerage firms and securities clearing organizations. A Holder that is not the beneficial owner of a Bond, and each other financial intermediary in the chain to the beneficial owner, will have the responsibility of establishing and maintaining accounts for their respective customers. The rights of the beneficial owner of a Bond with respect to TVA and the Federal Reserve Banks may be exercised only through the Holder thereof. TVA and the Federal Reserve Banks will have no direct obligation to a beneficial owner of a Bond that is not also the Holder of such Bond. The Federal Reserve Banks will act only upon the instructions of Holders in recording transfers of the Bonds.

## Stripping

At the request of a Holder, a Bond may be separated (''stripped'') into its Interest and Principal Components and maintained as such on the book-entry records of the Federal Reserve Banks. The components of each stripped Bond are: each future interest payment (each an ''Interest Component''); and the principal payment (the ''Principal Component''). Each Interest Component and the Principal Component will have an identifying designation and CUSIP number as listed in the ''Summary of Offering'' above.

A Bond may be separated into its Interest and Principal Components at any time from the issue date to but not including January 15, 2038, at the option of the Holder. A request for separation must be made to the Federal Reserve Bank of New York (''FRBNY''). Currently the FRBNY does not charge a fee for such services. For a Bond to be stripped into its Interest and Principal Components as described above, the principal amount of the Bond must be in a minimum principal amount of \$4,000,000 or an integral multiple thereof. This minimum principal amount is the amount, based on the stated interest rate of the Bonds, that will produce a semi-annual interest payment of \$1,000 or multiples thereof. Interest and Principal Components will be obligations of TVA payable solely from TVA's Net Power Proceeds.

Once a Bond has been stripped into its Interest and Principal Components, the Interest and Principal Components may be maintained and transferred on the book-entry system of the Federal Reserve Banks in integral multiples of \$1,000. Payments on the Interest and Principal Components will be made on the applicable payment dates on the related Bonds by crediting Holders' accounts at the FRBNY. At the request of a Holder and on the Holder's payment of a fee (currently the FRBNY's fee applicable to on-line book-entry securities transfers), the FRBNY will restore ("reconstitute") the unmatured Interest and Principal Components of a stripped Bond to their fully constituted form. Holders wishing to reconstitute the unmatured Interest and Principal Components of a stripped Bond to their fully constituted form must

(i) produce all outstanding Interest and Principal Components for a Bond, and (ii) comply with all applicable requirements of the FRBNY governing the stripping and reconstitution of securities. Only stripped Bonds with a minimum original principal amount of \$4,000,000 or integral multiples thereof may be reconstituted.

The offering price of the Interest and Principal Components could be at substantial discounts from their face amounts and, as a result, these components may be subject to greater interest rate volatility than the fully constituted Bonds or other obligations bearing current interest. There also may be a less liquid secondary market for such Interest and Principal Components as compared to the secondary market for the fully constituted Bonds.

# **Governing Law**

The Fiscal Agency Agreement and the Bonds shall be governed by and construed in accordance with the laws of the State of New York, to the extent such law is not inconsistent with federal law.

## Listing

Application has been made to list the Bonds on the New York Stock Exchange.

# **LEGALITY OF INVESTMENT**

Each person or entity is advised to consult with its own counsel with respect to the legality of investment in the Bonds or in any stripped Interest and Principal Components thereof (see "Description of Bonds" — "Stripping"), which could be subject to restrictions or requirements with respect to the legality of investment that do not apply to Power Bonds held in their fully constituted form. Generally the following describes the legality of investment in Power Bonds in their fully constituted form.

Power Bonds are lawful investments and may be accepted as security for all fiduciary, trust and public funds, the investment or deposit of which shall be under the authority or control of any officer or agency of the United States of America. 16 U.S.C. § 831n-4(d).

Power Bonds are acceptable as collateral for Treasury tax and loan accounts pursuant to 31 C.F.R. § 203.14(d)(1).

National banks may deal in, underwrite and purchase Power Bonds for their own accounts in an amount not to exceed ten percent of unimpaired capital and surplus. 12 U.S.C. § 24, seventh paragraph.

Federal Reserve Banks may accept Power Bonds as eligible collateral for advances to member banks. 12 U.S.C. § 347 and 12 C.F.R. § 201.108(b) (13).

Federal savings associations and federal savings banks may, to the extent specified in applicable regulations, invest in Power Bonds without regard to limitations generally applicable to investments. 12 U.S.C. § 1464(c)(1)(F).

Power Bonds are eligible as collateral for advances by Federal Home Loan Banks to members for which Power Bonds are legal investments. 12 U.S.C. § 1430(a) and 12 C.F.R. § 935.9(a) (2).

Federal credit unions may purchase Power Bonds. 12 U.S.C. § 1757(7)(E).

Power Bonds are "obligations of a corporation which is an instrumentality of the United States" within the meaning of Section 7701(a)(19)(C)(ii) of the Internal Revenue Code for purposes of the 60 percent of assets limitation applicable to building and loan associations.

## TAX MATTERS

# Tax Considerations Applicable to Bonds

The following summary of certain United States federal income tax and certain limited state and local tax consequences of the purchase, ownership and disposition of the Bonds has been prepared by Orrick, Herrington & Sutcliffe LLP, as special tax counsel to TVA, and is based upon laws, regulations, rulings and decisions, which are subject to change at any time, possibly with retroactive effect. The discussion below does not address the tax consequences associated with stripping a Bond into its Interest and Principal Components or of the purchase, ownership, or disposition of an Interest or Principal Component. For a discussion of such tax matters, see "Tax Considerations Applicable to Strips". The discussion does not address all aspects of United States federal income and estate taxation that may be relevant to a particular investor in light of its personal investment circumstances or to certain types of investors subject to special treatment under the United States federal income tax laws (for example, brokers, security dealers, banks, life insurance companies and tax-exempt organizations), and generally does not address state and local taxation. Further, the discussion is limited to persons who will hold the Bonds as capital assets, and does not deal with United States federal income tax consequences applicable to persons who will hold the Bonds in the ordinary course or as an integral part of their trade or business, or as part of a hedging, straddle, integrated or conversion transaction or persons whose functional currency is not the U.S. dollar. Each prospective owner of a Bond is urged to consult with its own tax advisor with respect to the United States federal, state and local tax consequences associated with the purchase, ownership and disposition of a Bond or of an Interest or Principal Component, as well as the tax consequences arising under the laws of any other taxing jurisdiction, and may not construe the following discussion as legal advice.

For purposes of this subsection (''Tax Considerations Applicable to Bonds''), ''U.S. Person'' means a citizen or resident of the United States, or a corporation or partnership organized in or under the laws of the United States or any political subdivision thereof, an estate the income of which is includible in gross income for United States tax purposes regardless of its source or a trust if a United States court is able to exercise primary supervision over administration of the trust and one or more U.S. fiduciaries have authority to control all substantial decisions of the trust. The term ''U.S. beneficial owner'' includes any U.S. Person which is a beneficial owner of a Bond and any person which is a beneficial owner of a Bond that is otherwise subject to United States federal income taxation on a net income basis in respect of income attributable to the Bond.

## U.S. Beneficial Owners

A U.S. beneficial owner is subject to federal income taxation on income on a Bond. The Act, however, provides that the Bonds are exempt both as to principal and interest from all taxation now or hereafter imposed by any state or local taxing authority except estate, inheritance and gift taxes. This exemption might not extend to franchise or other non-property taxes in lieu thereof imposed on corporations or to gain or loss realized upon the sale or exchange of a Bond, notwithstanding that such gain might in some cases be treated as interest income for United States federal income tax purposes.

Interest on a Bond will be taxable to a U.S. beneficial owner at the time that it is received or accrued, depending upon the U.S. beneficial owner's method of accounting for United States federal income tax purposes. There is no special exemption for a Bond from United States federal estate and gift tax.

Upon a sale or exchange of a Bond, a U.S. beneficial owner generally will recognize capital gain or loss equal to the difference between the amount realized on the sale or exchange (not including any amounts attributable to accrued and unpaid interest) and the beneficial owner's adjusted basis for the Bond.

If a U.S. beneficial owner purchases a Bond for less than its stated redemption price at maturity, in general, that difference will be market discount (unless the discount is less than ¼ of 1% of the stated redemption price at maturity of the Bond multiplied by the number of complete years remaining to

maturity). In general, under the market discount rules, unless the U.S. beneficial owner elects to accrue market discount in income currently, any gain on a disposition of a market discount Bond will be ordinary income to the extent of accrued market discount, and deductions for a portion of the interest on any indebtedness incurred or continued to purchase or carry the Bond may be deferred. Any election to include market discount in income currently generally applies to all debt instruments acquired by the electing U.S. beneficial owner during or after the first taxable year to which the election applies and is irrevocable without the consent of the Internal Revenue Service. A U.S. beneficial owner should consult a tax advisor before making the election.

A U.S. beneficial owner who purchases a Bond for an amount greater than the amount payable at maturity of the Bond may elect to amortize the bond premium. In the case of a U.S. beneficial owner that makes an election to amortize bond premium or has previously made an election that remains in effect, amortizable bond premium on a Bond generally will be treated as a reduction of the interest income on a Bond on a constant yield basis (except to the extent regulations may provide otherwise) over the term of the Bond. The basis of a debt obligation purchased at a premium is reduced by the amount of amortized bond premium. An election to amortize bond premium generally applies to all debt instruments (other than tax-exempt obligations) held by the electing U.S. beneficial owner on the first day of the first taxable year to which the election applies or thereafter acquired by such owner, and is irrevocable without consent of the Internal Revenue Service. A U.S. beneficial owner should consult a tax advisor before making the election.

A U.S. beneficial owner may elect to include in gross income all interest that accrues on a debt instrument using the constant-yield method described below under the heading "Tax Considerations Applicable to Strips". For purposes of this election, interest includes original issue discount ("OID"), market discount, de minimis market discount and unstated interest, as adjusted by any amortizable bond premium or acquisition premium. If this election is made with respect to a debt instrument with amortizable bond premium, then the electing U.S. beneficial owner will be deemed to have elected to apply amortizable bond premium against interest with respect to all debt instruments with amortizable bond premium (other than debt instruments the interest on which is excludible from gross income) held by the electing U.S. beneficial owner as of the beginning of the taxable year in which the debt instrument with respect to which the election is made is acquired or thereafter acquired. The deemed election with respect to amortizable bond premium may not be revoked without the consent of the Internal Revenue Service. If this election is made with respect to a debt instrument with market discount, the electing U.S. beneficial owner will be deemed to have elected to include market discount in income currently (as discussed above) with respect to all debt instruments acquired by the electing U.S. beneficial owner during or after the first taxable year to which the election applies, which election may not be revoked without the consent of the Internal Revenue Service.

#### Non-U.S. Beneficial Owners

Generally, a non-U.S. beneficial owner will not be subject to United States federal withholding tax on interest on a Bond. To qualify for the exemption from withholding, the last U.S. Person in the chain of payment prior to payment to a non-U.S. beneficial owner (the "Withholding Agent") must have received in the year in which such a payment occurs, or in either of the two preceding years, a statement that (i) is signed by the beneficial owner under penalties of perjury, (ii) certifies that such owner is not a U.S. beneficial owner, and (iii) provides the name and address of the beneficial owner. The statement may be made on an Internal Revenue Service Form W-8 or substantially similar substitute form, and the beneficial owner must inform the Withholding Agent of any change in the information on the statement within 30 days of such change. If a Bond is held through a securities clearing organization or certain other financial institutions, the organization or institution may provide a signed statement to the Withholding Agent. However, in such case, the signed statement must be accompanied by a copy of a Form W-8 or substitute form provided by the beneficial owner to the organization or institution holding the Bond on behalf of the beneficial owner.

Recently issued regulations would provide alternative methods for satisfying the certification requirements described above (and contain special rules applicable to foreign partnerships). The

proposed regulations are generally effective for payments made after 1998. There can be no assurance that these regulations will not be amended prior to the date they first become effective.

Generally, any amount which constitutes capital gain to a non-U.S. beneficial owner upon retirement or disposition of a Bond will not be subject to federal income taxation in respect of such amount. Certain exceptions may be applicable and individual non-U.S. beneficial owners are particularly urged to consult a tax advisor.

Generally, the Bonds will not be includible in the federal estate of a non-U.S. beneficial owner.

# Backup Withholding

Backup withholding of United States federal income tax at a rate of 31 percent may apply to payments made in respect of the Bonds to beneficial owners who are not exempt recipients and who fail to provide certain identifying information (such as the beneficial owner's taxpayer identification number) in the manner required. Generally, individuals are not exempt recipients, whereas corporations and certain other entities generally are exempt recipients. Payments made in respect of the Bonds to a U.S. beneficial owner must be reported to the United States Internal Revenue Service, unless such U.S. beneficial owner is an exempt recipient or establishes an exemption. Compliance with the identification procedures (described in the preceding section) would generally establish an exemption from backup withholding for those non-U.S. beneficial owners who are not exempt recipients.

In addition, upon the sale of a Bond to (or through) a broker, the broker must withhold at a rate of 31 percent of the reportable payment, unless either (i) the broker determines that the seller is a corporation or other exempt recipient or (ii) the seller provides, in the required manner, certain identifying information and, in the case of a non-U.S. beneficial owner, certifies that such seller is a non-U.S. beneficial owner (and certain other conditions are met). Such a sale must also be reported by the broker to the United States Internal Revenue Service, unless either (i) the broker determines that the seller is an exempt recipient or (ii) the seller certifies its non-U.S. status (and certain other conditions are met). Certification of the beneficial owner's non-U.S. status usually would be made on Form W-8 under penalties of perjury, although in certain cases it may be possible to submit other documentary evidence. The term broker generally includes all persons who, in the ordinary course of a trade or business, stand ready to effect sales made by others, as well as brokers and dealers registered as such under the laws of the United States or a state. These requirements generally will apply to a United States office of a broker, and the information reporting requirements generally will apply to a foreign office of a United States broker, as well as to a foreign office of a foreign broker (i) who is a controlled foreign corporation within the meaning of Section 957(a) of the Internal Revenue Code or (ii) 50 percent or more of whose gross income from all sources for the 3-year period ending with the close of its taxable year preceding the payment (or for such part of the period that the foreign broker has been in existence) was effectively connected with the conduct of a trade or business within the United States.

Generally, any amounts withheld under the backup withholding rules from a payment to a beneficial owner would be allowed as a refund or a credit against such beneficial owner's United States federal income tax.

# Tax Considerations Applicable to Strips

The following discussion of the United States federal income and estate tax consequences of the purchase, ownership and disposition of Strips has been prepared by Orrick, Herrington & Sutcliffe, LLP, as special tax counsel to TVA, and is based upon laws, regulations, rulings and decisions, which are subject to change at any time, possibly with retroactive effect. The discussion does not address all aspects of United States federal income and estate taxation that may be relevant to a particular investor in light of its personal investment circumstances or to certain types of investors subject to special treatment under the United States federal income tax laws (for example, brokers, security dealers, banks, life insurance companies and tax-exempt organizations), and generally does not address state and local taxation. Further, the discussion is limited to persons who will hold the Strips as capital assets,

and does not deal with United States federal income tax consequences applicable to persons who will hold the Strips in the ordinary course or as an integral part of their trade or business, or as part of a hedging, straddle, integrated or conversion transaction or persons whose functional currency is not the U.S. dollar. Each prospective owner of a Strip is urged to consult with its own tax advisor with respect to the United States federal, state and local tax consequences associated with the purchase, ownership and disposition of a Strip, as well as tax consequences arising under the laws of any other taxing jurisdiction, and may not construe the following discussion as legal advice.

For purposes of this subsection (''Tax Considerations Applicable to Strips''), ''U.S. Person'' means a citizen or resident of the United States, or a corporation or a partnership organized in or under the laws of the United States or any political subdivision thereof, an estate or trust the income of which is includible in gross income for United States tax purposes regardless of its source or a trust if a United States Court is able to exercise primary supervision over administration of the trust and one or more U.S. fiduciaries have authority to control all substantial decisions of the trust. The term ''U.S. beneficial owner'' includes any U.S. Person which is a beneficial owner of a Strip and any person which is a beneficial owner of a Strip that is otherwise subject to United States federal income taxation on a net basis in respect of income attributable to the Strip.

#### U.S. Beneficial Owners

A U.S. beneficial owner is subject to United States federal income taxation on the income of a Strip, and there is no special exemption from United States federal estate and gift tax with respect to Strips. Although the Act provides that bonds issued by TVA are exempt both as to principal and interest from all state and local taxation (except estate, inheritance and gift taxes), it is unclear whether this exemption applies to the income on a Strip. If all of the income on a Strip were to be exempt from state and local taxation, the amount of income exempted from such taxation could be in excess of the amount that would have been exempted had the Bonds not been separated into their Interest and Principal Components. It is unclear whether or not this was intended. Therefore, while it is believed that the income on a Strip should qualify for the exemption provided in the Act at least to the extent of the rate of interest payable on the Bonds, there is no controlling precedential authority and, therefore, each owner of a Strip is urged to consult its own tax advisor as to whether or not the income of a Strip qualifies in whole or in part for the exemption provided in the Act.

A U.S. beneficial owner which elects to strip a Bond into its Interest and Principal Components and to dispose of one or more of such Components will be required to include in income all interest and market discount accrued on the Bond to the date of disposition (to the extent that such income has not previously been included in income), and the owner's basis in the Bond will be increased, immediately prior to effecting the strip, by the amount so included in income. Upon the disposition of a Strip, the U.S. beneficial owner will be required to recognize gain or loss equal to the difference between the amount realized on the disposition of the Strip and the owner's basis in the Strip immediately prior to the sale. For purposes of determining that basis, the owner will be required to allocate its tax basis in the Bond immediately prior to the sale (as adjusted in the manner detailed above) between the Interest and Principal Components based on their respective fair market values on the date of the sale.

A U.S. beneficial owner of a Strip will accrue income on the Strip in accordance with the original issue discount ("OID") rules set forth in the Internal Revenue Code of 1986, as amended. In this regard, the application of the OID rules to the Strips is subject to significant uncertainty, and therefore purchasers of the Strips are urged to consult with their own tax advisors. Generally, however, it is anticipated that each U.S. beneficial owner of a Strip will be required to include in income, as OID, the difference between (1) the stated redemption price at maturity of the Interest or Principal Component owned by such person (which generally would include all payments to be made on the Component subsequent to the date that the strip was effected or, if later, the date of the owner's purchase of the Component) and (2) the owner's purchase price for the Component (or, in the case of a person who effects a strip but retains one or more of the Components, the portion of the person's basis in the Bond which is allocable to the retained Components, as determined pursuant to the rules set forth in the preceding paragraph).

The amount of OID on a Strip (determined as set forth above) will be includible on a constant yield basis in the income of a U.S. beneficial owner of a Strip over the life of the Strip (excluding, with respect to certain owners, Strips having a maturity of one year or less from the date of purchase — which Strips would be subject to special OID rules which are discussed below), even in years in which the owner of the Strip does not receive any actual payment. The amount of OID that must be included in income each year by the U.S. beneficial owner of a Strip will be equal to the sum of the daily portions of the OID that accrued during each day of the year during which the U.S. beneficial owner owned the Strip. The daily portions will be determined by allocating to each day of the accrual period, as defined below, a pro rata portion of an amount equal to the adjusted issue price of the Strip at the beginning of the accrual period, also as defined below, multiplied by the yield to maturity of the Strip, determined by compounding at the close of each accrual period and properly adjusted for the length of the accrual period. For purposes of these calculations, (i) the accrual periods will, generally, be of any length and may vary in length over the term of the Strip, provided that each accrual period is no longer than a year and that each scheduled payment of principal and interest occurs either on the final day of an accrual period or on the first day of an accrual period, and (ii) the adjusted issue price of a Strip will be the owner's purchase price for the Strip (or, in the case of a person who effects a strip but retains one or more of the Components, the portion of the person's basis in the Bond which is allocable to the retained Components, as determined pursuant to the rules set forth above), increased by the OID accrued by the owner in previous accrual periods and decreased by any payments received by the owner in prior accrual periods. The amount of OID allocable to an initial short accrual period may be computed using any reasonable method if all other accrual periods other than a final short accrual period are of equal length. The amount of OID allocable to the final accrual period is the difference between (x) the amount payable at the maturity of the Strip and (y) the Strip's adjusted issue price as of the beginning of the final accrual period. The foregoing rules will be applied to each Strip separately.

In general, a cash basis U.S. beneficial owner who purchases a Strip the payment with respect to which is due not later than one year from the date of issuance ("short-term Strips") is not required to accrue OID (as determined under the special rule described below for the purposes of this paragraph) for United States federal income tax purposes unless it elects to do so. Accrual basis U.S. beneficial owners and certain other U.S. beneficial owners (including banks, regulated investment companies, dealers in securities, common trust funds, U.S. beneficial owners who hold the debt instruments as part of certain identified hedging transactions, certain pass-thru entities and electing cash basis U.S. beneficial owners) who purchase a short-term Strip and any U.S. beneficial owners who strip a Bond into its Interest and Principal Components and who retain one or more such Components are required to accrue OID on short-term Strips on either a straight-line basis or under the constant-yield method (based on daily compounding), at the election of the U.S. beneficial owner. In the case of a U.S. beneficial owner not required and not electing to include OID on a short-term Strip in income currently, any gain realized on the sale or retirement of the short-term Strip will be ordinary income to the extent of the OID accrued on a straight-line basis (unless an election is made to accrue the OID under the constant-yield method) through the date of sale or retirement. U.S. beneficial owners who are not required and who do not elect to accrue OID on short-term Strips will be required to defer deductions for interest on borrowings allocable to short-term Strips in an amount not exceeding the deferred income until the deferred income is realized.

Upon the sale or exchange of a Strip, a U.S. beneficial owner generally will recognize capital gain or loss equal to the difference between the amount realized on the sale or exchange and the U.S. beneficial owner's adjusted tax basis in the Strip. A U.S. beneficial owner's adjusted tax basis in a Strip will generally be its cost, increased by the amount of any OID included in the U.S. beneficial owner's income with respect to the Strip.

TVA is selling the Bonds (and not Strips) to the Underwriters; it is possible, however, that the Underwriters may elect to strip the Bonds and sell Interest and Principal Components (as well as Bonds) immediately upon their acceptance of the Bonds. Such Strips might be viewed, for United States federal income tax purposes, as OID bonds issued by TVA to the purchasers of the Strips. If the Internal Revenue

Service were to characterize the transaction in this fashion, the rules set forth above would generally apply to the Bonds stripped by the Underwriter, except that (1) the amount of OID on each Strip so sold would be measured, and the adjusted issue price would be determined, by reference to the first price at which a substantial amount of each such Strip was sold, rather than by reference to the price paid by the purchaser for the Strip (not only in the case of an initial purchaser of the Strip, but also in the case of any transferee thereof) and (2) the stated redemption price at maturity would be determined by reference to all payments to be made on the Strip subsequent to the date of the closing relating to the Bonds offered hereby rather than by reference to the payments to be made subsequent to the owner's acquisition of the Strip. Each U.S. beneficial owner is urged to consult with its own tax advisor as to the likelihood of such a characterization, as well as to the application of the "acquisition premium" and "market discount" rules which would apply to those Bonds stripped by the Underwriter if the transaction were to be so characterized.

The OID rules are also unclear as to the treatment of a U.S. beneficial owner who acquires a Principal Component and all the associated Interest Components; it is believed, however, that such a person would not treat the Components as a Bond, but would instead recognize income on each of the Components in the manner detailed above. However, if such a person requests the FRBNY to reconstitute the Components into a Bond and that Bond is then sold to another person, it is believed that the new purchaser would be treated as having acquired a Bond (rather than Interest and Principal Components) with the result that the rules set forth above, under "Tax Considerations Applicable to Bonds", would apply. Each purchaser of a Strip is urged to consult its own tax advisor as to this issue.

## Non-U.S. Beneficial Owners

Generally, a non-U.S. beneficial owner of a Strip will not be subject to United States federal withholding tax on the income of the Strip. To qualify for the exemption from withholding, the Withholding Agent must have received in the year in which such a payment occurs, or in either of the two preceding years, a statement that (i) is signed by the beneficial owner under penalties of perjury, (ii) certifies that such owner is a non-U.S. beneficial owner, and (iii) provides the name and address of the beneficial owner. The statement may be made on an Internal Revenue Service Form W-8 or substantially similar substitute form, and the beneficial owner must inform the Withholding Agent of any change in the information on the statement within 30 days of such change. If a Strip is held through a securities clearing organization or certain other financial institutions, the organization or institution may provide a signed statement to the Withholding Agent. However, in such case, the signed statement must be accompanied by a copy of a Form W-8 or substitute form provided by the beneficial owner to the organization or institution holding the Strip on behalf of the beneficial owner.

Recently issued regulations would provide alternative methods for satisfying the certification requirements described above (and contain special rules applicable to foreign partnerships). The proposed regulations are generally effective for payments made after 1998. There can be no assurance that these regulations will not be amended prior to the date they first become effective.

Generally, any amount which constitutes capital gain to a non-U.S. beneficial owner upon retirement or disposition of a Strip will not be subject to United States federal income taxation. Certain exceptions may be applicable and individual non-U.S. beneficial owners are particularly urged to consult their own tax advisors.

Generally, the Strips will not be includible in the federal estate of a non-U.S. beneficial owner.

# Backup Withholding

Backup withholding of United States federal income tax at a rate of 31 percent may apply to payments made in respect of the Strips to owners of the Strips that are not "exempt recipients" and that fail to provide certain identifying information (such as taxpayer identification number) to the Withholding Agent at the time and in the manner required. Such backup withholding may also apply in the case of payments made upon the disposition of a Strip. Individuals generally are not exempt recipients, whereas

corporations and certain other entities are generally exempt recipients. Compliance with the identification procedures described in the preceding section would generally establish an exemption from backup withholding for those non-U.S. beneficial owners who are not exempt recipients.

In addition, upon the sale of a Strip to (or through) a broker, the broker must withhold at a rate of 31 percent of the reportable payment, unless either (i) the broker determines that the seller is a corporation or other exempt recipient or (ii) the seller provides, in the required manner, certain identifying information and, in the case of a non-U.S. beneficial owner, certifies that such seller is a non-U.S. beneficial owner (and certain other conditions are met). Such a sale must also be reported by the broker to the Internal Revenue Service, unless either (i) the broker determines that the seller is an exempt recipient or (ii) the seller certifies its non-U.S. status (and certain other conditions are met). Certification of the beneficial owner's non-U.S. status usually would be made on Form W-8 under penalties of perjury, although in certain cases it may be possible to submit other documentary evidence. The term broker generally includes all persons who, in the ordinary course of a trade or business, stand ready to effect sales made by others, as well as brokers and dealers registered as such under the laws of the United States or a state. These requirements generally will apply to a United States office of a broker, and the information reporting requirements generally will apply to a foreign office of a United States broker, as well as to a foreign office of a foreign broker (i) who is a controlled foreign corporation within the meaning of Section 957 (a) of the Internal Revenue Code or (ii) 50 percent or more of whose gross income from all sources for the 3-year period ending with the close of its taxable year preceding the payment (or for such part of the period that the foreign broker has been in existence) was effectively connected with the conduct of a trade or business within the United States.

Generally, any amounts withheld under the backup withholding rules from a payment to a beneficial owner would be allowed as a refund or a credit against such beneficial owner's United States federal income tax.

## **UNDERWRITING**

Subject to the terms and conditions set forth in an underwriting agreement (the "Underwriting Agreement") between TVA and Goldman, Sachs & Co. (the "Underwriter"), TVA has agreed to sell to the Underwriter, and the Underwriter has agreed to purchase, the entire principal amount of the Bonds.

Under the terms and conditions of the Underwriting Agreement, the Underwriter is committed to take and pay for all of the Bonds, if any are taken.

TVA has been advised by the Underwriter that it proposes to offer the Bonds to the public at the initial public offering price set forth on the cover page of this Offering Circular and in part to certain dealers at such price, less a concession not in excess of 0.200% of the principal amount of the Bonds. The Underwriter may allow, and such dealers may reallow, a concession not in excess of 0.125% of such principal amount of the Bonds on sales to certain brokers and dealers. After the Bonds are released for sale to the public, the offering price and other selling terms may from time to time be varied by the Underwriter.

The Underwriter of the Bonds immediately upon its acceptance of the Bonds may, but is not obligated to, strip some or all of the Bonds and deliver Strips rather than Bonds to investors purchasing Strips. Sales of any such Strips would be at negotiated prices.

Application has been made to list the Bonds on the New York Stock Exchange.

The Bonds are a new issue of securities with no established trading market. TVA has been advised by the Underwriter that it intends to make a market in the Bonds and the Strips but is not obligated to do so and may discontinue market making at any time without notice. No assurance can be given as to the liquidity of the trading market for the Bonds or the Strips.

In connection with the offering, the Underwriter may purchase and sell the Bonds in the open market. These transactions may include over-allotment and stabilizing transactions and purchases to cover short positions created by the Underwriter in connection with the offering. Stabilizing transactions consist of certain bids or purchases for the purpose of preventing or retarding a decline in the market price of the Bonds; and short positions created by the Underwriter involve the sale by the Underwriter of a greater number of Bonds than they are required to purchase from TVA in the offering. The Underwriter also may impose a penalty bid, whereby selling concessions allowed to broker-dealers in respect of the securities sold in the offering may be reclaimed by the Underwriter if such Bonds are repurchased by the Underwriter in covering transactions. These activities may stabilize, maintain or otherwise affect the market price of the Bonds, which may be higher than the price that might otherwise prevail in the open market; and these activities, if commenced, may be discontinued at any time. These transactions may be effected on the New York Stock Exchange, in the over-the-counter market or otherwise.

TVA has agreed to indemnify the Underwriter against certain civil liabilities or to contribute to payments the Underwriter may be required to make in respect thereof.

# **VALIDITY OF BONDS**

The validity of the Bonds will be passed upon for TVA by Edward S. Christenbury, Esq., General Counsel of TVA, and for the Underwriter by Orrick, Herrington & Sutcliffe LLP, 666 Fifth Avenue, New York, New York 10103.

\* \* \* \* \* \*

Any statements in this Offering Circular involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Offering Circular is not to be construed as a contract or agreement with the purchaser of any of the Bonds.

TENNESSEE VALLEY AUTHORITY

By: /s/ DAVID N. SMITH

David N. Smith

Chief Financial Officer

Dated January 7, 1998

# TENNESSEE VALLEY AUTHORITY

A Wholly Owned Corporate Agency and Instrumentality of the

# UNITED STATES OF AMERICA

The Tennessee Valley Authority ("TVA" or "Corporation") presents this Information Statement ("Statement") for the information of potential purchasers of its Power Bonds (the "New Power Bonds"), including its First Installment Series Bonds (the "Installment Bonds" — sometimes called "FISBS"), its Discount Notes and such other evidences of indebtedness ("Other Indebtedness") it may issue pursuant to the Act (as defined below). New Power Bonds are to be issued pursuant to authority vested in TVA by the Tennessee Valley Authority Act of 1933, as amended (the "Act"), and the Basic Tennessee Valley Authority Power Bond Resolution adopted by the Board of Directors of TVA (the "Board") on October 6, 1960, as amended on September 28, 1976, October 17, 1989, and March 25, 1992 (the "Basic Resolution"). Discount Notes and Other Indebtedness are issued pursuant to the Act and their respective authorizing resolutions.

TVA may from time to time offer New Power Bonds and Other Indebtedness and may offer on a continuous basis Discount Notes for sale by direct placements or through selected investment dealers, dealer banks, underwriters, or underwriting syndicates as TVA deems appropriate. Information concerning particular offerings of New Power Bonds, Discount Notes or Other Indebtedness will be described in an appropriate offering circular and in any supplement thereto. This Statement, and any supplement hereto, should be read in conjunction with the offering circular and any supplement thereto for the particular New Power Bonds, Discount Notes or Other Indebtedness being offered.

This Statement will be updated by supplements or replaced from time to time to reflect annual financial results of the Corporation and as otherwise determined appropriate by the Corporation. Any provisions herein modified or superseded shall not be deemed, except as so modified, to constitute a part of this Statement. Additional copies of this Statement may be obtained upon written request directed to Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902, Attention: Vice President and Treasurer, or by calling (423) 632-3366.

No salesperson, dealer or other person has been authorized to give any information or to make any representations not contained herein or in a specific offering circular or supplement approved by TVA, and, if given or made, such information or representation must not be relied upon as having been authorized by TVA. This Statement and any offering circular or supplement do not constitute an offer to sell or a solicitation of any offer to buy any of the New Power Bonds, Discount Notes or Other Indebtedness offered hereby in any jurisdiction to any person to whom it is unlawful to make such offer in such jurisdiction. The delivery of this Statement and any offering circular or supplement at any time does not imply that the information given herein or therein is correct at any time subsequent to its respective date.

THE NEW POWER BONDS, DISCOUNT NOTES, AND OTHER INDEBTEDNESS OF TVA WILL NOT BE OBLIGATIONS OF, NOR WILL PAYMENT OF PRINCIPAL THEREOF OR ANY INTEREST THEREON BE GUARANTEED BY, THE UNITED STATES OF AMERICA. PRINCIPAL AND INTEREST, IF ANY, WILL BE PAYABLE SOLELY FROM TVA'S NET POWER PROCEEDS AS HEREIN DEFINED. THE NEW POWER BONDS, DISCOUNT NOTES, AND OTHER INDEBTEDNESS ARE NOT REQUIRED TO BE REGISTERED UNDER THE SECURITIES ACT OF 1933. ACCORDINGLY, NO REGISTRATION STATEMENT HAS BEEN, AND NONE WILL BE, FILED WITH THE SECURITIES AND EXCHANGE COMMISSION. TVA IS NOT SUBJECT TO THE PERIODIC REPORTING REQUIREMENTS OF THE SECURITIES EXCHANGE ACT OF 1934.

This Statement describes the business and operations of TVA as of its date and the financial condition of TVA as of the date of the financial statements included herein. Recipients of this Statement should retain it for future reference until such time as a subsequent Statement is made available by TVA, but delivery or retention of this Statement after the date hereof shall not create any implication that the information provided herein is correct at any time after the date hereof.

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## THE TENNESSEE VALLEY AUTHORITY

TVA is one of the largest electric power systems in the United States, producing more than 145 billion kilowatt-hours ("kWh") of electricity in fiscal 1996. TVA is a wholly owned corporate agency and instrumentality of the United States established by the Act with the objective of developing the resources of the Tennessee Valley region in order to strengthen the regional and national economy and the national defense.

TVA's programs fall into two types of activities—the power program and the nonpower programs. Substantially all TVA revenues and assets are attributable to the power program. Most of the funding for TVA's nonpower programs is provided by congressional appropriations. TVA has received \$109 million and \$106 million in congressional appropriations for fiscal 1996 and 1997, respectively. Additional funds are obtained for financing certain nonpower activities from various revenues and user fees associated with nonpower activities. The power program is required to be self-supporting from revenues it produces and capital it raises in the public markets. Financial accounts for the two types of TVA activities—power and nonpower—are kept separately. Proceeds from the sale of TVA's New Power Bonds, Discount Notes, and Other Indebtedness (collectively "Evidences of Indebtedness") may be used only for the power program.

TVA is authorized by the Act to issue Evidences of Indebtedness to assist in financing its power program in an amount not exceeding \$30 billion outstanding at any one time. See "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" — "Issuance of Additional Bonds and Other Evidences of Indebtedness".

Congress has reserved the right to alter, amend or repeal the Act, but has provided that no amendment or repeal shall operate to impair the obligation of any contract made by TVA in the exercise of any power conferred by the Act.

TVA is administered by the Board, which is composed of three persons appointed by the President and confirmed by the Senate. Appointments are for nine-year staggered terms with one term expiring with each three-year interval. The Board has sole authority for determining the rates which TVA charges for power. The Act requires the Corporation to charge rates for power which, among other things, will produce gross revenues sufficient to provide funds for operation, maintenance, and administration of its power system; payments to states and counties in lieu of taxes; debt service on outstanding Evidences of Indebtedness, including provision and maintenance of reserve funds and other funds established in connection therewith; and annual payments to the U.S. Treasury (the "Treasury") in repayment of and as a return on the government's appropriation investment in TVA power facilities. See "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness". Such appropriation investment totaled \$608 million as of September 30, 1996. See "Certain Provisions of the Tennessee Valley Authority Act" — "Payments to the Treasury".

TVA is required annually to file with the President and with the Congress a financial statement and a complete report as to the business of the Corporation. The Comptroller General of the United States is authorized to periodically audit the transactions of TVA.

Under certain conditions, TVA may borrow from the Treasury up to \$150 million for a period of one year or less. Any issuance by TVA of Evidences of Indebtedness with a term of one year or longer is subject to the approval of the Secretary of the Treasury as to the issue date and maximum interest rate. The borrowing authority of TVA is treated as budget authority by the Office of Management and Budget for purposes of the budget of the United States.

Income on Evidences of Indebtedness issued by TVA is subject to various federal tax consequences. Under the Act, Evidences of Indebtedness are exempt both as to principal and interest from all taxation now or hereafter imposed by any state or local taxing authority except estate, inheritance and gift taxes.

# SELECTED FINANCIAL DATA

The following selected financial data of TVA's power program for the fiscal years 1992 through 1996 have been derived from TVA's audited financial statements. These data should be read in conjunction with the audited financial statements and notes thereto (the "Financial Statements") presented herein.

# Condensed Statements of Income (dollars in millions)

	Fiscal Year Ended September 30				
	1996	1995	1994	1993	1992
Operating Revenues	\$ 5,693 3,656	\$ 5,375 3,448	\$ 5,401 3,461	\$ 5,276 3,269	\$ 5,065 3,198
Operating Income	2,037 (10)	1,927 (91)	1,940 (59)	2,007 23	1,867 (87)
Income Before Interest Expense	2,027 2,083	1,836 2,024	1,881 1,853	2,030 1,777	1,780 1,695
Used During Construction	(117)	(198)	(123)	(58)	(35)
Net Interest Expense	1,966	1,826	1,730	1,719	1,660
Net Income	\$ 61	\$ 10	\$ 151	\$ 311	\$ 120
Ratio of Earnings to Fixed Charges(1)	1.03	1.01	1.08	1.18	1.07

# Condensed Balance Sheet (in millions)

	September 30				
	1996	1995	1994	1993	1992
Assets					
Current Assets	\$ 1,306	\$ 1,088	\$ 1,025	\$ 1,434	\$ 1,724
Property, Plant, and Equipment	29,521	29,301	28,071	27,888	24,893
Investment Funds	440	260	150	_	188
Deferred Charges and Other Assets	2,762	2,644	2,596	1,601	2,514
TOTAL ASSETS	<u>\$34,029</u>	\$33,293	\$31,842	\$30,923	\$29,319
Liabilities and Proprietary Capital					
Current Liabilities	\$ 5,101	\$ 5,416	\$ 4,591	\$ 4,942	\$ 3,372
Other Liabilities	1,580	1,264	963	1,034	2,993
Long-Term Debt(2)	23,320	22,583	22,206	20,954	19,204
Proprietary Capital	4,028	4,030	4,082	3,993	3,750
TOTAL LIABILITIES AND					
PROPRIETARY CAPITAL	<u>\$34,029</u>	\$33,293	\$31,842	\$30,923	\$29,319

<sup>(1)</sup> Ratio of Earnings to Fixed Charges (unaudited) is calculated by dividing Net Income plus Interest Expense by Interest Expense.

<sup>(2)</sup> See Note 6 of the accompanying Financial Statements with respect to defeased debt.

# **COMPARATIVE FIVE-YEAR DATA**

# Statistical and Financial Summaries

	For the years ended September 30,				
	1996	1995	1994	1993	1992
Sales (millions of kilowatt-hours)					
Municipalities and cooperatives	117,035	110,245	108,073	105,566	98,505
Industries directly served	16,599	16,684	15,792	16,196	16,576
Federal agencies	6,966	7,226	4,407	2,382	2,204
Total sales	140,600	134,155	128,272	124,144	117,285
Operating revenues (millions of dollars) Electric Municipalities and accorpatives	\$ 4,980	\$ 4,654	\$ 4,582	\$ 4,479	\$ 4,266
Municipalities and cooperatives	\$ 4,980 452	460	4,362	472	4,200
Federal agencies	172	179	296	254	256
Other	89	82	71	71	71
Total revenues	\$ 5,693	\$ 5,375	\$ 5,401	\$ 5,276	\$ 5,065
Revenue per kilowatt-hour (cents) (a)	3.99	3.94	4.03	4.06	4.12
Net winter dependable generating capacity (megawatts)					
Hydro(b)	5,298	5,225	5,242	4,885	4,885
Fossil	15,012	15,032	15,032	15,088	15,088
Nuclear units in service	5,545	3,342	3,342	3,365	3,361
Combustion turbine	2,268	2,232	2,264	2,284	2,284
Total capacity	28,123	25,831	25,880	25,622	25,618
System peak load (megawatts) — summer	25,376	25,496	23,398	23,878	21,980
System peak load (megawatts) — winter	25,995	24,676	24,723	21,666	21,974
Percent gross generation by fuel source					
Fossil	65%				70%
Hydro	11%				12%
Nuclear	24%	17%	14%	10%	18%
Fuel cost per kilowatt-hour (cents)					
Fossil	1.23	1.26	1.34	1.27	1.33
Nuclear(c)	.56	.61	1.10	1.09	1.10
Aggregate fuel cost per kWh net thermal generation	1.06	1.14	1.31	1.25	1.29
Fuel data					
Net thermal generation (millions of kilowatt-hours)	131,898	118,097	110,643	109,968	105,577
Billion Btu	1,338,157	1,197,295	1,120,868	1,105,395	1,069,725
Fuel expense (millions of dollars)	1,395	1,348	1,450	1,375	1,360
Cost per million Btu (cents)	104.22	112.61	129.40	124.42	127.16
Net heat rate, fossil only (Btu's per kWh)	10,145	10,138	10,131	10,052	10,132

<sup>(</sup>a) Excludes Department of Energy settlement payment of \$160 million for the years 1992-1994.

<sup>(</sup>b) Includes 405 megawatts of dependable capacity from the Corps of Engineers projects on the Cumberland River System.

<sup>(</sup>c) TVA changed its method of expensing the interest component of nuclear fuel expense in 1995. See Note 1 of the accompanying Financial Statements.

# MANAGEMENT'S DISCUSSION AND ANALYSIS OF FINANCIAL CONDITION AND RESULTS OF OPERATIONS

## **Results of Operations**

# Operating Environment

Net income for fiscal 1996 was \$61 million compared with \$10 million for fiscal 1995 and \$151 million for fiscal 1994. The improvement in net income from fiscal 1995 to fiscal 1996 was primarily driven by sales growth and increased operating efficiencies. The decrease in net income between fiscal years 1994 and 1995 was attributable to several factors, including an early-out package (see Note 8 of the accompanying Financial Statements), increased depreciation and amortization and an increase in interest expense, partially offset by a decrease in operating and maintenance cost resulting from decreased labor expense and a gain on sale of investments.

TVA has continued to increase generation and sales over the past nine years even though the number of employees has decreased. Sales have increased from about 108 billion kWh in fiscal 1987 to more than 140 billion kWh in fiscal 1996. This increase in kWh sales is due in part to TVA's ability to maintain competitive rates. On October 1, 1996, TVA began its tenth year of stable rates. In fact, because of economic pricing programs developed for industrial customers, average electric revenue per kWh was 3.99 cents per kWh in fiscal 1996 compared to 4.72 cents per kWh in fiscal 1987.

# Operating Revenues

Operating revenues were \$5,693 million in fiscal 1996 compared to \$5,375 million in fiscal 1995 and \$5,401 million in fiscal 1994. The \$318 million increase in fiscal 1996 over fiscal 1995 was primarily due to an increase in kWh sales of approximately 6 billion (4.5 percent), from 134 billion in fiscal 1995 to over 140 billion in fiscal 1996, combined with an increase in the revenue per kWh approximately 0.05 cents (1.3 percent), from 3.94 cents in fiscal 1995 to 3.99 cents in fiscal 1996. This increase in kWh sales primarily resulted from overall growth within the municipalities and cooperatives segment and more extreme weather conditions in fiscal 1996.

The \$26 million decrease in revenues between fiscal 1994 and fiscal 1995 was partially due to a \$160 million contract-termination settlement payment included in fiscal 1994 revenue. See Note 9 of the accompanying Financial Statements. Excluding this payment, operating revenue increased \$134 million between fiscal 1994 and fiscal 1995. This increase was primarily due to an increase in kWh sales of approximately 6 billion (5 percent), from 128 billion in fiscal 1994 to 134 billion in fiscal 1995, offset by a decrease in the revenue per kWh of approximately 0.09 cents (2.2 percent) from 4.03 cents in fiscal 1994 to 3.94 cents in fiscal 1995. The decrease in revenue per kWh was primarily attributable to a change in sales mix and continued economic pricing options for customers.

# Operating Expenses

Operating expenses for fiscal 1996 were \$3,656 million, compared with \$3,448 million for fiscal 1995 and \$3,461 million for fiscal 1994. Fuel and purchased power expenses were \$1,278 million for fiscal 1996 compared with \$1,443 million for fiscal 1995 and \$1,493 million for fiscal 1994.

The \$208 million (6 percent) increase in operating expenses from fiscal 1995 to fiscal 1996 resulted primarily from increased generation during fiscal 1996 and the introduction of two nuclear units to the power system.

Net fuel and purchased power expense decreased \$165 million (11 percent) between fiscal 1995 and fiscal 1996, primarily due to favorable fuel prices and greater off-system sales of electricity, which reflect the increased availability of reliable generating capacity.

Operating and maintenance costs increased \$168 million (16 percent) from \$1,050 million in fiscal 1995 to \$1,218 million in fiscal 1996, and depreciation and amortization expense increased \$201 million (29 per-

cent) from \$703 million in fiscal 1995 to \$904 million in fiscal 1996. These increases were primarily due to the operation of two additional nuclear generating units in fiscal 1996.

Fiscal 1995 operating expenses decreased \$13 million over fiscal 1994, which primarily consisted of a decrease in nuclear fuel expense in fiscal 1995 resulting from the reclassification of the interest portion of nuclear fuel (see Note 1 of the accompanying Financial Statements), a decrease in fuel and purchased power expense (excluding the reclassification noted above) and a decrease in operating and maintenance expense in fiscal 1995, partially offset by an increase in depreciation and amortization in fiscal 1995.

# Other Expense

TVA incurred net other expense of \$10 million and \$91 million during fiscal 1996 and 1995, respectively. The fiscal 1995 net expense was primarily comprised of a \$136 million charge for the voluntary early-out package offered employees and a write-off of nuclear fuel defabrication charges of about \$15 million, partially offset by the recognition of an \$81 million gain from a 1993 sale of investments.

# Interest Expense

Gross interest expense increased \$59 million from \$2,024 million in fiscal 1995 to \$2,083 million in fiscal 1996. The change was due to an increase in total outstanding debt during fiscal 1996. Total outstanding indebtedness net of unamortized discounts and other adjustments as of September 30, 1996, was \$27.3 billion, with an average interest rate of 7.60 percent, compared to \$26.7 billion, with an average interest rate of 7.64 percent as of September 30, 1995. The allowance for funds used during construction decreased from \$198 million in fiscal 1995 to \$117 million in fiscal 1996, due to the reduction of the overall level of capital spending in fiscal 1996.

## **Financial Condition**

# Liquidity and Capital Resources

TVA's power program is required to be self-supporting from revenues it produces and capital it raises in public markets. As the TVA Act does not authorize TVA to issue equity securities, TVA raises its capital requirements through the internal generation of funds or through borrowings subject to a congressionally mandated \$30-billion limit. Historically, TVA has accessed both the federal and public bond markets; since 1989, all capital needs have been met through issuances in the public sector.

The fiscal 1996 completion of Watts Bar Unit One and the restart of Browns Ferry Unit Three significantly reduce TVA's future capital requirements. The completion of TVA's nuclear construction program has contributed to TVA's self-imposing an internal debt ceiling of \$28 billion. During fiscal 1996 and fiscal 1995, TVA generated cash flow from operations of \$910 million and \$802 million, respectively. TVA does not anticipate any increase in overall debt in 1997 or 1998. For capital requirements met by internally generated funds, see "Statements of Cash Flows" of the accompanying Financial Statements.

# **Financing Activities**

Long-term debt and cash from operations are used to finance capital expenditures. Short-term debt and cash from operations are used to manage daily cash needs. In fiscal 1996 TVA issued \$4.4 billion in long-term bonds, including a 1.5 billion Deutsche Mark issue, the cash flows of which were swapped back into dollars. See Note 6 of the accompanying Financial Statements. Of the proceeds from the fiscal 1996 offerings, \$3.8 billion were primarily used to refinance existing debt and \$0.2 billion were used to finance capital expenditures. The remaining \$0.4 billion consisted primarily of an increase in investments and cash.

In December 1996, TVA issued in the public market \$350 million in Power Bonds (due 2036) to retire existing debt.

## THE AREA SUPPLIED BY TVA

TVA supplies power in most of Tennessee, northern Alabama, northeastern Mississippi, and southwestern Kentucky, and in small portions of Georgia, North Carolina and Virginia. The population of the area served by TVA is over 7 million. Subject to certain minor exceptions, TVA may not without specific authorization by Act of Congress enter into contracts which would have the effect of making it or its distributors a source of power supply outside the area for which TVA or its distributors were the primary source of power supply on July 1, 1957.

TVA is primarily a wholesaler of power. Its customers are composed of three major groups: (1) distributors, consisting of municipal and cooperative systems; (2) industries which have large or unusual loads; and (3) federal agencies. In addition, TVA has entered into exchange power arrangements with most of the surrounding electric systems.

# RATES, CUSTOMERS AND MARKET

The Act delegates to the Board sole responsibility for establishing the rates which TVA charges and authorizes it to include in power contracts such terms and conditions as in its judgment may be necessary or desirable for carrying out the purposes of the Act. The Act requires the Corporation to charge rates for power which, among other things, will produce gross revenues sufficient to provide funds for operation, maintenance, and administration of its power system; payments to states and counties in lieu of taxes; debt service on outstanding Evidences of Indebtedness, including provision and maintenance of reserve funds and other funds established in connection therewith; and annual payments to the Treasury in repayment of and as a return on the Government's appropriation investment in TVA power facilities. See "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" — "Rate Covenant". Rates set by the Board are not subject to review or approval by any state or federal regulatory body.

A summary of power program operating revenues by customer type for each of the last five fiscal years ended September 30 is shown in the Comparative Five-Year Data, presented on page 3.

# Municipal and Cooperative Distributors

TVA has entered into wholesale power contracts with 160 municipal and cooperative distributors. Such contracts are for terms of 20 years and require distributors to purchase substantially all of their electric power and energy requirements from TVA. Most distributors purchase power under a contract that requires 10 years' notice to terminate the contract and further provides that on each annual anniversary of the contract (beginning with the tenth anniversary) one additional year is automatically added to the term. TVA also now offers to distributors power contract term arrangements that require 15 years' notice to terminate the contract. On each annual anniversary of these contracts (beginning with the fifth anniversary) one additional year is automatically added to the term. As part of the arrangement, TVA agrees that these term arrangements are deemed to provide for adequate recovery by TVA of any investment in generation, transformation, or transmission facilities for service to the distributor. To date five distributors have opted for these arrangements. Two small distributors providing less than one percent of revenues continue to operate under the term provisions applicable prior to the two above-described types of arrangements. Municipal and cooperative distributors accounted for approximately 87 percent of total power revenues in fiscal 1996.

The contracts contain standard provisions specifying the wholesale rates, resale rates and terms and conditions under which the power is to be distributed. Under the contracts, TVA, on a quarterly basis, may determine and make adjustments in the wholesale rate schedule with corresponding adjustments in resale rate schedules necessary to enable TVA to meet all requirements of the Act and the tests and provisions of its bond resolutions. In addition, the contracts provide for agreement between the parties on general or major changes in both the wholesale and resale rate schedules, and permit TVA, if agreement is not reached, to make changes in such schedules to carry out the objectives of the Act, to meet financial requirements and tests, and to comply with the provisions of its bond resolutions.

The resale rates under which the distributors serve ultimate consumers are stipulated in the power contracts between the distributors and TVA and are revised from time to time to reflect changes in costs, including changes in the wholesale cost of power. They are designed to promote the Act's objective of providing an adequate supply of power at the lowest feasible rates.

## **Industries and Federal Agencies Served Directly**

Contracts with industries served directly by TVA normally are for terms of 10 years but are subject to termination by TVA or the customer upon a minimum notice period that varies according to the customer's contract demand and the period of time service has been provided at that location. Industries directly served accounted for approximately 8 percent of power revenues in fiscal 1996. The power sold directly to industries is delivered under contracts at rates established by TVA. Such rates are the same as those charged by distributors to large industries (those with demand greater than 25,000 kilowatts ("kW")) they serve. Power is sold to federal agencies under the same contract terms and rates as directly served industries.

#### COMPETITION

The electric utility industry has become increasingly competitive in the past decade. Competition is expected to intensify in the future as a result of federally encouraged deregulation of utilities affecting the wholesale power markets and various provisions of the Energy Policy Act of 1992 ("Energy Act"). Chief among the provisions of this act which will further intensify the competitive environment are amendments (1) to the Federal Power Act that give the Federal Energy Regulatory Commission ("FERC") greater authority to order electric utilities with transmission lines to wheel (transmit) power over their systems for electric power generating entities; and (2) to the Public Utility Holding Company Act of 1935 that allow the creation of certain kinds of power generating entities without the entities or their parent corporations being made subject to regulation by the Securities and Exchange Commission under that act.

Nevertheless, a special provision in the Energy Act prevents the new wheeling authority of the FERC from being used to provide TVA-served municipal and cooperative distributors with an alternative source of power supply. That provision excludes from the new wheeling authority the wheeling of electric energy that will be consumed within the area served by TVA and the distributors (except for Bristol, Virginia).

Several important regulatory rulings were issued during 1996 that will have a significant impact on TVA. In April 1996, FERC issued Order Nos. 888 and 889. Order 888 requires FERC-regulated utilities that own, control, or operate transmission lines to file nondiscriminatory open-access tariffs that offer others certain basic types of transmission service. Order 889 requires FERC-regulated utilities to participate in an electronic information system known as the Open Access Sametime Information System (OASIS), which allows for the electronic communication of information about transmission systems and services to all potential customers at the same time. This rule also requires FERC-regulated utilities to functionally separate their wholesale power marketing and transmission operations. The FERC also issued a Notice of Proposed Rulemaking (NOPR) to obtain comments on a system for reserving capacity on utilities' own and others' transmission lines.

In response to these rulings, TVA has taken steps to voluntarily comply with the FERC orders. Specifically, TVA has adopted changes (to be effective January 1, 1997) to its existing guidelines, originally adopted by the TVA Board in 1994, which offer transmission service patterned after the open-access tariff but consistent with the TVA Act and the Energy Policy Act of 1992. TVA will also post available transmission capacity and conduct transmission business through an OASIS on the Internet. TVA will implement a Code of Conduct based on FERC's standards contained in Order 889. This will include separating TVA's operations for transmission requests, scheduling, and transmission system security from TVA's wholesale off-system sales activities.

Bills were introduced during the past Congress that would have required retail electric service choice to be instituted for all retail electric customers in the United States. Generally, the bills would have abolished exclusive service territories and would have allowed any electric utility (or other provider of electricity) to serve another electric utility's present customers, including those of TVA and the municipal and cooperative

distributors served by TVA. Although the past Congress did not enact retail choice legislation, TVA expects that similar types of bills will be introduced in 1997 and will receive considerable Congressional attention. TVA anticipates that in the event any retail choice legislation is enacted, such legislation would enable TVA and the distributors of TVA power to take part, reciprocally, in retail competition outside the area for which they can now be a source of electric power supply.

TVA also anticipates the return during the next Congress of bills that would require the sale of federally-owned hydroelectric generation facilities, perhaps including those of TVA. A similar proposal was not enacted during the past Congress. In TVA's opinion, enactment of any such legislation is unlikely.

Although other power suppliers, under certain circumstances, may sell power in the area where TVA power is distributed, there are statutory provisions restricting TVA from expanding the area in which it is a source of power supply. It is important that TVA market power at rates competitive with other suppliers in the region. TVA believes that its ten years of stable rates have assisted distributors of TVA power in competing for new commercial and industrial loads.

In today's competitive environment, some of the municipal and cooperative distributors may consider alternative wholesale supply arrangements upon expiration or termination of their power contracts with TVA. One distributor, representing less than one percent of TVA revenues, has provided TVA with notice of power contract termination to permit it to study alternative power supply arrangements.

TVA's management continues to develop plans and strategies that will help position TVA to successfully compete in a deregulated electricity market both within the Tennessee Valley and nationwide.

A report in the October 1996 *Electric Light & Power* showed that, in addition to TVA being the largest generator, TVA's average power rate of 3.97 cents per kWh was the lowest among the top 12 producers of electricity in the United States. These rankings are based on utility operations during calendar year 1995.

In August 1995, U.S. General Accounting Office ("GAO") issued a report which, among other things, focused on TVA's level of debt, rates, competitive position and deferred nuclear assets. The report raises the issue of whether TVA will be able to recover all the costs of its deferred nuclear assets and the financial and competitive impact this would have. While the GAO is authorized to assist the Congress by evaluating government programs and activities and may make recommendations in this regard, it has no authority to order or direct that any action be taken. The report relating to TVA does not make any specific recommendations. TVA furnished to GAO a detailed response as to why the report is flawed in its analysis. GAO included TVA's response in the report appendix.

In February 1995, the Chairman of the Board publicly commented that, in view of the approaching deregulation of the electric power industry and an era of open-market competition, TVA is looking into the expansion of services offered and a broadening of the area it serves. He pointed out that careful consideration would be given before proposing any specific legislation for removing TVA's territorial limitations. In preparation for meeting competition in the changing electric utility industry, the Chairman also has called for an examination by the TVA staff of TVA's relationship with 160 distributors of TVA power. He has asked that a number of items be examined, including whether alternative contractual arrangements relating to services and pricing structures should be developed, in preparing for an entirely new operating environment.

# POWER AND ENERGY REQUIREMENTS

TVA prepares annual forecasts of future power and energy requirements as part of its planning and budgeting process. TVA's forecast procedure involves producing a range of load forecasts for the explicit purpose of bounding the range of uncertainty associated with load growth. The load forecasts are produced probabilistically. TVA believes that the high load forecast has a 90 percent probability that actual load will be less than forecast, that the medium load forecast has a 50 percent probability that actual load will be less than forecast, and that the low load forecast has a 10 percent probability that actual load will be less than forecast. TVA's current load forecast through fiscal year 2000 reflects an average annual load growth rate of 5.0 percent, 2.5 percent, and 0.5 percent for the high, medium, and low load forecasts, respectively. TVA's

total system energy requirements through fiscal year 2000 reflect an average annual growth rate of 5.1 percent, 2.4 percent, and (0.3) percent for the high, medium, and low load forecasts, respectively.

Various provisions in the Energy Act make changes in a wide range of laws affecting energy use and development in the United States. In addition to various other features, some of which are discussed herein, this act establishes a statutory framework for how TVA plans and selects methods for meeting future energy needs.

#### CAPITAL EXPENDITURES

Cash required by TVA for capital expenditures totaled \$990 million, \$1.7 billion and \$2.0 billion for fiscal 1996, 1995 and 1994, respectively. TVA's current forecast for capital expenditures, including capitalized interest, totals \$920 million for fiscal 1997.

TVA's construction program and related expenditures are continuously reviewed and periodically revised because of changes in estimated system load growth, rates of inflation, nuclear licensing requirements and schedules, the availability and timing of environmental, siting and other regulatory approvals, the scope of modifications required by regulatory agencies, including the Nuclear Regulatory Commission (the "NRC"), the availability and costs of external sources of capital and other factors beyond TVA's control.

## **POWER SYSTEM**

TVA's power generating facilities at September 30, 1996, included 29 hydroelectric plants, 11 coal-fired plants, 3 nuclear plants, 1 pumped storage hydroelectric plant and 4 gas turbine plants. Power is delivered to TVA customers over a transmission system of approximately 16,800 miles of lines, including 2,400 miles of extra-high-voltage (500,000 volt) transmission lines. The system interconnects with neighboring power systems at numerous points, and TVA has various types of interchange arrangements with these systems. The extent and types of interchange transactions depend upon the characteristics of the systems' loads, the management policies of the systems and other factors. Interchange arrangements are an essential part of TVA's efforts to minimize investment in electrical facilities, increase the reliability of service, effect operating economies and minimize the cost of electric energy.

Three subsidiaries of The Southern Company, which have interchange arrangements with TVA, filed suit asking the court to prohibit TVA from contracting to sell or deliver electric power to LG&E Power Marketing, Inc. ("LPM"), or to any other entities, whereby such electric power would be utilized by those organizations to facilitate electric power transactions they may have with others located outside the area that TVA serves under the TVA Act. In August 1996, the United States District Court for the Northern District of Alabama ruled that LPM is not, under the Act, an entity with which TVA may enter into interchange arrangements. Although the court indicated that it disagreed with TVA's position that the Act's territorial limitations did not apply to transactions under TVA's interchange arrangements with other organizations, the court stated specifically that it was not ruling on that issue. Accordingly, the court's action does not affect TVA's existing interchange arrangements with Louisville Gas and Electric Company or any other entities other than LPM. TVA does not believe that the inability to enter into transactions with LPM will have a material adverse effect on the financial condition or results of operation of TVA.

During the fiscal year ended September 30, 1996, 65 percent of the power generated by the TVA coordinated system was by fossil fired plants, 24 percent by nuclear, and 11 percent by hydro. Coal consumption during this time was 40.7 million tons. Coal is purchased under contracts ranging from a single delivery to deliveries over several years. Management believes the sources and availability of fuel materials essential to its business should be adequate for the foreseeable future. TVA coal inventory levels vary from plant to plant based upon a simulated inventory model. As of September 30, 1996 TVA had approximately 22 days' coal supply in inventory at full burn.

TVA's power system is one of the largest in the United States in capacity and in energy production. Its size permits the construction of large facilities which result in lower unit costs. Most of TVA's dams were

completed years ago when construction costs were far below present-day levels. Because most of the dams are multipurpose, their cost is shared by navigation, flood control, recreation and local economic development, as well as by power; thus, each purpose is served at a substantially lower cost than if the dams had been built for a single purpose.

# **Generating Resources**

The following table summarizes the winter net dependable capacity ("NDC") on this coordinated system as of September 30, 1996:

	Generating Units	NDC MW(1)
TVA Hydro Plants	109	3,043
TAPOCO Hydro Plants		318(2)
Corps of Engineers Hydro Plants		405(3)
TVA Pumped Storage Facility	4	1,532
Total Hydro		5,298
Fossil	59	15,012
Nuclear	5	5,545
Combustion Turbine	48	2,268
Total NDC		<u>28,123</u>

- (1) NDC as stated is the net power output which can be obtained for a period adequate to satisfy the daily load patterns under expected conditions of operation with equipment in an average state of maintenance. For planning purposes, TVA currently estimates summer dependable total hydro capacity of approximately 5,486 MW; coal-fired capacity of approximately 14,679 MW; nuclear power capacity of approximately 5,442 MW; and combustion turbine capacity of approximately 1,936 MW, for a total summer NDC of approximately 27,543 MW.
- (2) Four hydro plants owned by TAPOCO, Inc., a subsidiary of the Aluminum Company of America ("Alcoa"), are operated as part of the TVA power system. Under contractual arrangements with TAPOCO, electric power generated at these facilities is supplied to TVA. In return, TVA supplies electric power for Alcoa's aluminum plant operations located in Tennessee.
- (3) The Corps of Engineers' plants on the Cumberland River System have a total installed capacity of 853 MW, of which 405 MW of NDC is available to TVA under a marketing agreement with Southeastern Power Administration.

Under arrangements among TVA, the United States Corps of Engineers (the "CORPS") and the Southeastern Power Administration (the "SEPA"), 8 hydro plants of the CORPS comprising the Cumberland River system are operated in coordination with the TVA system. These arrangements further provide for capacity (405 MW) and energy from the Cumberland River system to be supplied to TVA by SEPA at the points of generation, and the price paid for the power to be based on the operating and maintenance expenses and amortization of the power facilities. A portion of the output of the Cumberland River system is also made available to SEPA's customers outside the TVA region. The agreement with SEPA covering these arrangements for power from the Cumberland River system can be terminated upon three years' notice.

## **Integrated Resource Plan**

In December 1995, the Board approved TVA's Integrated Resource Plan ("IRP") which is being utilized in formulating TVA's strategy for meeting future customer energy demands. The IRP identifies a 25-year least-cost energy resource strategy for TVA's power system. TVA's IRP strategy relies on a portfolio of energy resource options that made up the best seven energy resource strategies evaluated for the TVA power system. These strategies performed well across all of the IRP evaluation criteria including debt, rates, costs, reliability, and environmental impacts. These options provide TVA the flexibility to respond to forecasted

future demands on the system of an additional 10,000 MW by 2010 (based on the medium load forecast) in a manner that maintains and enhances its competitive position. Included in the portfolio are customer service options (e.g. energy conservation, load management, beneficial electrification) and supply side options (the purchase of call options which give TVA the right to purchase power from other power producers in the future, the investigation and use of renewable energy technologies such as cost-effective biomass and wind turbines, and combined-cycle repowering of some existing coal-fired units). Other IRP results are set forth in the "Nuclear Power Program" section.

#### **NUCLEAR POWER PROGRAM**

## Overview

TVA has five operating nuclear units at three locations. Construction activities at three additional units have been suspended and one licensed unit remains in an inoperative status. See detailed discussions on all operating, deferred and inoperative nuclear units in the sections below and Note 2 of the accompanying Financial Statements.

# Sequoyah

Sequoyah is a two-unit plant located approximately 7.5 miles northeast of the city limits of Chattanooga, Tennessee, with pressurized water reactors supplied by Westinghouse Electric Corporation. Both units are rated at 1,147 MW net electrical output. TVA received an Operating License for Unit One in 1980, and the unit began commercial operation in 1981. TVA received an Operating License for Unit Two in 1981, and the unit began commercial operation in 1982. The Operating Licenses expire 40 years after issuance. The plant was designed, built and is operated by TVA. TVA voluntarily shut down both units in 1985 in response to technical and operational concerns.

Both Sequoyah units returned to commercial operation in 1988 and were removed from the NRC's list of plants that require close monitoring in 1989. Sequoyah Units One and Two have recorded a 69.7 average percent equivalent availability for the three years ending September 1996. (The "equivalent availability" is the ratio of the energy a unit could have generated, if called on, to the energy the unit would have produced if it had run at full load over the entire period, expressed as a percentage).

# **Browns Ferry**

Browns Ferry is a three-unit plant located approximately 10 miles southwest of Athens, Alabama, with boiling water reactors supplied by General Electric Company. Each unit is rated at 1,065 MW net electrical output. The plant was designed, built and is operated by TVA. TVA received Operating Licenses for Units One, Two, and Three in 1973, 1974 and 1976, respectively. They began commercial operation in 1974, 1975 and 1977, respectively. The Operating Licenses for these units expire 40 years after issuance. Units One, Two and Three were voluntarily shut down by TVA in 1985 in response to technical and operational concerns.

Browns Ferry Unit Two was returned to commercial operation in 1991 and was removed from the NRC's list of plants requiring continued close monitoring in 1992. Browns Ferry Unit Two has recorded an 87.6 average percent equivalent availability factor for the three years ending September 1996.

Browns Ferry Unit Three was restarted in November 1995 and returned to commercial operation in January 1996. In June 1996 the NRC removed Browns Ferry Unit Three from the list of plants warranting close monitoring having found that the unit has demonstrated sustained improved performance since it was restarted. Browns Ferry Unit Three recorded a 91.0 percent equivalent availability factor through September 30, 1996.

Browns Ferry Unit One has been idled since March 1985. Major modifications are required to bring the plant to current standards. At September 30, 1996 the undepreciated cost of Browns Ferry Unit One was \$86 million. Preliminary cost estimates based on IRP information indicate that cost associated with returning Unit

One to service would be between \$1.2 and \$3.2 billion. See "Status of Certain Nuclear Units" for discussion of the status of Browns Ferry Unit One.

## Watts Bar

Watts Bar is a two-unit power plant located approximately 50 miles northeast of Chattanooga, Tennessee, with pressurized water reactors supplied by Westinghouse Electric Corporation. Unit One is rated at 1,138 MW net electrical output. The plant was designed and has been built to its present level of completion by TVA. The Construction Permit for Unit Two expires in December 1999.

Although physical construction of Watts Bar Unit One was substantially complete in 1985, efforts to obtain an Operating License were delayed due to numerous safety concerns expressed by Watts Bar workers. TVA performed a series of evaluations and developed comprehensive corrective actions to address all safety concerns. Overall plant design was reverified and extensive plant modifications were made to ensure that the plant was designed and constructed in accordance with regulatory requirements and TVA's commitments.

In November 1995, the NRC granted a license authorizing TVA to load fuel in Unit One and begin operations up to five percent of rated power. In February 1996, the NRC granted Unit One a license to operate at full power. Watts Bar Unit One successfully completed all power ascension testing activities and commenced full power commercial operation in May 1996. Since beginning commercial operation, the plant has operated at a 95.8 percent equivalent availability factor through September 30, 1996.

In 1988, TVA suspended construction activities at Watts Bar Unit Two because of a reduction in the forecasted load growth. Total investment in Unit Two at September 30, 1996, was \$1.7 billion, including capitalized interest. Preliminary cost estimates based on IRP information indicate that the cost associated with completing Unit Two would be between \$1.1 and \$2.9 billion. See "Status of Certain Nuclear Units" for discussion of the status of Unit Two.

## **Bellefonte**

Bellefonte is a two-unit power plant located approximately 59 miles southwest of Chattanooga with pressurized water reactors supplied by Babcock & Wilcox Company ("B&W") rated at 1,212 MW net electrical output each. The plant was designed and has been built to its present level of completion by TVA. Construction Permits were obtained from the NRC for both units in December 1974.

TVA deferred construction activities on Bellefonte Unit Two because of a reduction in forecasted load growth in October 1985. Construction activity was deferred on Unit One in July 1988, and TVA notified the NRC of this action in accordance with the NRC's October 1987 Policy Statement on Deferred Nuclear Plants. In March 1993, in accordance with guidance in the NRC's policy statement, TVA notified the NRC of its plans to resume completion activities at Bellefonte. No construction activities have occurred since 1988. Construction Permits for Unit One and Unit Two have been extended by the NRC to 2001 and 2004, respectively.

As of September 30, 1996, TVA had \$4.6 billion, including capitalized interest, invested in these units. See "Status of Certain Nuclear Units" for discussion of Bellefonte's current status. Preliminary cost estimates based on IRP information indicate that cost associated with completing the Bellefonte units would be between \$1.3 and \$3.5 billion for Unit One and \$900 million and \$2.4 billion for Unit Two.

## Status of Certain Nuclear Units

Preliminary cost estimates, utilizing the IRP (see "Power System" — "Integrated Resource Plan"), show that completing the units at Bellefonte and Watts Bar Unit Two may not be economically feasible. As a result, the Board in December 1994 announced a major change in policy declaring that TVA will not, by itself, complete Bellefonte Units One and Two and Watts Bar Unit Two as nuclear units. TVA's IRP identified as a viable option the conversion of the Bellefonte facility to a combined cycle plant utilizing natural gas or gasified coal. A feasibility study performed by an outside team of technical and financial experts is expected to be completed in late 1997. The TVA Board will consider alternatives, including converting the units to another

fuel source or completing them with a partner. The IRP also concluded that Watts Bar Unit Two should remain in deferred status until completion of the Bellefonte study. In addition, the IRP recommended that Browns Ferry Unit One continue in its inoperative status. The impact on TVA's financial position of completing, converting, or joint venturing these units will be determined upon completion of the Bellefonte study.

At September 30, 1996, TVA's total investment in Bellefonte Units One and Two, Watts Bar Unit Two and Browns Ferry Unit One was \$7.0 billion. The future decisions on these units will ultimately impact the method of cost recovery, and the TVA Board has determined that it will establish rate adjustments and operating policies to ensure full recovery of the cost of these units and compliance with the requirements of the TVA Act.

Because of extensive regulatory requirements and the resulting delays which are often very lengthy, estimates of the cost to complete nuclear plants have typically been unreliable. No assurance can be given that the cost estimates discussed above would not be changed significantly.

## **Nuclear Fuel**

TVA owns all nuclear fuel held for its nuclear units (operating and deferred). The net book value of such fuel was \$877 million as of September 30, 1996. See Notes 1 and 2 of the accompanying Financial Statements. TVA currently has sufficient inventory to last until 1999.

TVA's investment in the fuel being used in the Sequoyah, Watts Bar and Browns Ferry units is being amortized and accounted for as a fuel expense. The Bellefonte initial cores have been defabricated. The uranium from these cores is being used in the Sequoyah and Browns Ferry units and will continue to be used in these units in the near future, and the net book value will be assigned accordingly.

#### **Nuclear Waste**

Spent Nuclear Fuel

The Nuclear Waste Policy Act of 1982 (the "NWPA") provides that the federal government has the responsibility for the permanent disposal of spent nuclear fuel, but charges each nuclear power system with the responsibility for the cost of such permanent disposal. The NWPA requires each nuclear power system to enter into a disposal contract with DOE for such material. The contract requires each nuclear power system to pay a fee which is currently one mill per kWh for the net electricity generated and sold by each of its reactors. TVA's spent fuel efforts will ensure that sufficient cost-effective at-reactor storage is available to meet all of TVA's spent fuel storage requirements until DOE is prepared to accept TVA's spent fuel.

TVA presently has the capability to store its spent fuel at Sequoyah through the year 2004, at Browns Ferry Units One and Two through the year 2009, and at Browns Ferry Unit Three through the year 2000. Based on a one unit operation, Watts Bar storage capability will be sufficient until 2001. Plans are in place to extend storage capacity at Browns Ferry Unit Three and Watts Bar Unit One until 2006 and 2018, respectively. TVA plans to extend storage capability through life-of-plant if necessary by using higher density racks in its existing storage pools, fuel rod consolidation or dry storage casks.

## Low-Level Radioactive Waste

Disposal costs for low-level radioactive waste that result from normal operation of nuclear units have increased significantly in recent years and are expected to continue to rise. Pursuant to the Low-Level Radioactive Waste Policy Act, each state is responsible for disposal of low-level waste generated in that state. States may form regional compacts to jointly fulfill their responsibilities. The States of Tennessee and Alabama (where TVA nuclear plants are located) have joined with other southeastern states to form the Southeast Compact Commission for Low-Level Radioactive Waste Management. This commission regulates the siting of new disposal facilities and the disposal of low-level waste within the southeastern states.

Until July 1995, the low-level waste generators located in the Southeastern states were required to dispose of their waste at the Barnwell, South Carolina disposal facility. In July, South Carolina withdrew from the Southeast Compact Commission in order to open the Barnwell facility to all states except North Carolina. The states participating in the Southeast Compact Commission have selected North Carolina as the host state to select, license, and construct a new disposal site. TVA plans to continue to use the Barnwell facility for low-level radioactive waste disposal until the North Carolina facility is opened. Should either or both of the disposal facilities close unexpectedly, low-level radioactive waste will be stored in on-site facilities at the TVA nuclear plants. These facilities are sized to handle any anticipated storage needs for the foreseeable life of the plants.

#### **Nuclear Insurance**

The indemnification and limitation of liability plan afforded the United States nuclear industry by the Price-Anderson Act was extended for an additional 15 years in 1988, with certain provisions of the Price-Anderson Act now due to expire on August 1, 2002. The 1988 amendments and the 1993 inflation adjustment to the Price-Anderson Act substantially increased the limit of liability from an accident at an NRC-licensed reactor, and this amount is now approximately \$8.7 billion (\$79 million for each of the NRC-licensed reactors in the United States), composed of primary and secondary layers of financial protection. For further information about this nuclear liability insurance and its deferred premium see Note 10 of the accompanying Financial Statements. TVA, in accordance with industry practice, maintains certain liability insurance coverage for workers at the nuclear sites.

NRC regulations require nuclear power plant licensees to obtain, and TVA has acquired, onsite property damage insurance coverage of \$1.06 billion per nuclear site. Some of the nuclear property insurance may require the payment of retrospective premiums of up to approximately \$34.3 million (premium amount as of November 1996) in the event that losses by another insured party or TVA exceed available funds. In accordance with NRC regulations, the proceeds of nuclear property insurance are used first to ensure that the reactor is in safe and stable condition and that it can be maintained in a condition that prevents significant risk to the public. Next, the proceeds go for decontamination or, if necessary, decommissioning the reactor. Any excess proceeds insure against casualties to property.

# **Decommissioning**

Provision for decommissioning costs of nuclear generating units is based on the estimated cost using the dismantling/removal method. Based on current estimates, these amounts, stated in 1995 dollars, are \$824 million for Browns Ferry, \$505 million for Sequoyah and \$282 million for Watts Bar. The excess of the annual decommissioning provision over earnings from any investments designated for funding decommissioning costs is charged to depreciation expense. The book value of TVA's decommissioning fund investments was \$402 million at September 30, 1996. See Notes 1 and 10 of the accompanying Financial Statements.

## **ENVIRONMENTAL MATTERS**

TVA's activities are subject to various federal, state, and local environmental statutes and regulations. Major areas of regulation affecting TVA's activities include air pollution control, water pollution control, and management and disposal of solid and hazardous wastes. Because TVA is a federal agency, it is subject only to those state and local environmental requirements for which Congress has clearly waived federal agency immunity. Respecting the major environmental areas (air, water and waste), limited waivers have been enacted by Congress. TVA's activities may also be subject to other narrower environmental requirements or to environmental requirements which affect only federal activities.

TVA has incurred and continues to incur substantial capital expenditures and operating expenses to comply with environmental requirements. See Note 10 of the accompanying Financial Statements. Because of the continually changing nature of these requirements, the total amount of these costs is not now determinable. It is anticipated that environmental requirements will become more stringent and that compliance costs will increase, perhaps by substantial amounts.

## Air Pollution

Under the Clean Air Act, the United States Environmental Protection Agency (the "EPA") has promulgated national ambient air quality standards for certain air pollutants, including sulfur dioxide, particulate matter and nitrogen oxides. Coal-fired generating units are major sources of these pollutants. TVA also operates other smaller sources. The States of Alabama and Tennessee and the Commonwealth of Kentucky have promulgated implementation plans which regulate sources within their boundaries, including TVA sources, in order to achieve and maintain the national ambient standards. TVA has installed control equipment and employs control strategies to comply with applicable state-established emission limitations. TVA estimates that it spent about \$1.4 billion in capital costs on air pollution control activities prior to the 1990 Clean Air Act Amendments.

The acid rain control provisions of the 1990 Amendments to the Clean Air Act establish a number of new requirements for utilities. These requirements will be implemented by EPA and the states in two phases. TVA's Phase 1 affected units were brought into compliance at a capital cost of approximately \$710 million (exclusive of overhead and interest expenses). Phase 2 requirements have not been fully established by the U.S. Environmental Protection Agency, but TVA's current Phase 2 compliance strategy would result in capital costs of approximately \$1.3 billion.

Other 1990 amendments may affect the air pollution control requirements that are applicable to TVA's fossil plants. States and EPA are considering how the long-range transportation of both nitrogen oxide, which contributes to the formation of ozone, and ozone may contribute to violations of the ozone ambient air quality standard in downwind states. EPA is also considering making the current ozone ambient standard and particulate standard more stringent. These actions may lead to additional reductions of utility nitrogen oxide and sulfur dioxide emissions beyond those required by the acid rain provisions of the 1990 amendments. The costs for such additional reductions are unknown at this time but would likely be substantial.

The ozone ambient standard was exceeded in the Memphis area in the summer of 1995, and this triggered the Memphis-Shelby County ozone maintenance-contingency plan. Under this contingency plan, sources of nitrogen oxide within Shelby County will be required to further reduce emissions. TVA's Allen Fossil Plant is expected to be affected by this. The costs of this are uncertain, but are not expected to be substantial.

Under DOE's Climate Challenge Program, TVA entered into an agreement with DOE to reduce greenhouse gas emissions (carbon dioxide) by 22.7 million tons annually. The costs of this voluntary effort have not been substantial. Efforts are now being made internationally to obtain binding commitments from countries to reduce their greenhouse gas emissions. The form such commitment might take, how it might be implemented, and whether the United States would agree to this are unknown. However, if utilities are required to reduce their greenhouse gas emissions, the cost to TVA could be substantial.

## Water Pollution

Under the Clean Water Act, every point source which discharges pollutants into waters of the United States must obtain a National Pollutant Discharge Elimination System ("NPDES") permit specifying the allowable quantity and characteristics of the pollutants discharged. TVA's various point sources have received NPDES permits, including all of its major generating units. Compliance with NPDES requirements has necessitated substantial expenditures and may require additional, substantial expenditures in the future as NPDES permits come up for renewal and applicable requirements are made more stringent.

The Clean Water Act allows the permitting authority to establish thermal limits less stringent than the water quality criteria if the discharger can demonstrate that the alternate limit will assure protection and propagation of a balanced, indigenous aquatic population. TVA has now been issued alternate limits at several of its facilities, and it is meeting these limits.

## Solid and Hazardous Waste Management

Under the Resource Conservation and Recovery Act ("RCRA"), the storage, transportation, and disposal of hazardous wastes are regulated by EPA and the states. RCRA also allows EPA and the states to regulate solid wastes, and the states have detailed permitting programs for this. TVA has detailed procedures in place that comply with all applicable requirements for the management of hazardous wastes. In addition, TVA has instituted an approved supplier list for hazardous waste disposal contractors under which such contractors' financial status, compliance history, and physical facilities and operations are reviewed before they are allowed to treat or dispose of any of the hazardous wastes generated by TVA facilities. TVA does not itself operate any hazardous waste disposal or treatment facilities but does operate one permitted hazardous waste storage facility in Muscle Shoals, Alabama. TVA has obtained or is in the process of obtaining solid waste disposal permits for the solid waste disposal areas (e.g. fly ash, scrubber sludge, demolition materials and asbestos) it operates at some of its plant sites. TVA's costs in this area have not been substantial but applicable requirements are constantly changing and are expected to become more stringent.

Under the Comprehensive Environmental Response, Compensation, and Liability Act ("CERCLA"), the release and cleanup of hazardous substances are regulated. Certain persons who are associated with the release of hazardous substances to the environment can be held responsible for their cleanup, regardless of when the substances were released or when the specific person may have been associated with the substance. This liability under CERCLA is generally viewed as joint and several. TVA, in a manner similar to other industries and power systems, has generated or used hazardous substances over the years. In connection with these activities, TVA has been identified as a potentially responsible party with respect to three non-TVA sites at which TVA hazardous substances were disposed and which have not yet been resolved. In addition, TVA is currently investigating two other sites at which TVA is either an owner or a partial owner and for which TVA may have cleanup responsibilities by virtue of its control of the property. TVA's potential liabilities for its share of cleanup costs at these sites are uncertain but in total should be less than \$10 million.

## Miscellaneous

Polychlorinated biphenyls ("PCBs") have been widely used as insulating fluids in electric equipment (e.g., transformers and capacitors). Use of such equipment and the cleanup of released PCBs are regulated by EPA under the Toxic Substances Control Act. The TVA power system uses thousands of pieces of equipment which contain some level of PCBs. Most of this equipment can continue to be operated under EPA's PCB regulations for the remainder of its useful lives, but TVA is phasing out much of this equipment as a matter of policy. The cost of phasing out the remainder of this equipment should not exceed \$40 million (equipment replacement and disposal costs) but cannot be accurately determined at this time. TVA has in place detailed procedures to conform its operations to EPA's PCB regulations, and it has not incurred substantial costs in this area.

Many of TVA's facilities were constructed at a time when asbestos was the insulation of choice by industry. Asbestos materials now require special handling and disposal when they are removed. Although not required, TVA is removing or encapsulating asbestos as appropriate.

There is public concern about whether there are adverse health effects from exposure to electric and magnetic fields ("EMF"). There are many sources of EMF, including electric transmission lines. A recent report from a National Acadamy of Science organization has confirmed that there is no conclusive evidence that EMF causes adverse health effects. However, research in this area continues. Substantial costs could be incurred by electric systems, including TVA, if EMF levels from transmission lines have to be reduced, but this appears unlikely at this time.

As a federal agency, TVA is required to consider the potential environmental effects of major federal actions affecting the quality of the human environment under the National Environmental Policy Act (the "NEPA") and implementing regulations and to make these evaluations available to the public. TVA has incorporated the NEPA review process into its decision making process. NEPA-related costs are incurred continuously but not in substantial amounts.

## **INSURANCE**

TVA does not generally carry property damage or public liability insurance except as may be required or appropriate with respect to nuclear facilities and except to the extent it may do so as part of an owner-controlled insurance program it has implemented for some large contracts requiring on-site labor. Liability for service-connected injuries to employees is governed by the Federal Employees' Compensation Act. See "Nuclear Power Program" — "Nuclear Insurance" herein and Note 10 of the accompanying Financial Statements for additional information with respect to insurance.

#### MANAGEMENT

TVA is administered by a board of directors composed of three persons appointed by the President and confirmed by the Senate. The Board and selected officers, their ages, their years of employment with TVA and principal occupations for recent years are as follows:

Name and Title	Age	Year Commenced Employment	Year Term Expires
Craven Crowell	53	1993	2002
Johnny H. Hayes	56	1993	Recess Appointment
William H. Kennoy	59	1991	1999
Joseph W. Dickey	52	1991	
Oliver D. Kingsley, Jr	54	1988	
David N. Smith	52	1995	
Norman A. Zigrossi	61	1986	
President, Business Services Edward S. Christenbury General Counsel and Secretary	55	1987	

Mr. Crowell was appointed to the Board in July 1993. Prior to his current position, he served as Chief of Staff for Jim Sasser, Tennessee's then senior U.S. Senator (1989-1993), as Vice President of TVA's Office of Governmental & Public Affairs (1988-1989), and as TVA's Director of Information (1980-1988).

Mr. Hayes was appointed to the Board in July 1993 to fill the remainder of a Board term which expired in May 1996. Subsequently he received a recess appointment to the Board, which continues through the 1997 session of Congress. Mr. Hayes has been nominated by the President to fill a full term (until 2005). Prior to his current position, he served as the State of Tennessee's Commissioner of Economic and Community Development (1992-1993) and as Tennessee's Commissioner of Employment Security (1991-1992).

Mr. Kennoy was appointed to the Board in April 1991. Prior to his current position, he served as President of Kennoy Engineers for twenty-five years.

Mr. Dickey was named Chief Operating Officer in February 1994 and additionally was named Executive Vice President in October 1996. Prior to his current position, he served as TVA's Senior Vice President, Fossil and Hydro Power (1991-1994), Vice President of Power Resources (Florida Power & Light Co.) (1988-1991), and as Vice President, Nuclear Energy (Florida Power & Light Co.) (1985-1988).

Mr. Kingsley was named President of TVA Nuclear and Chief Nuclear Officer in February 1994. Prior to his current position, he served as TVA's President, Generating Group (1991-1994), as TVA's Senior Vice President of Nuclear Power (1988-1991), and as Vice President, Nuclear Operations for System Energy Resources, Inc. (Mississippi Power and Light Company) (1985-1988).

Mr. Smith was named Chief Financial Officer in January 1995 and additionally was named Executive Vice President, Financial Services, in October 1996. Prior to his current position, he served as Executive Director of Odyssey Financial (1993-1994), as Vice President of Finance of LTV Corporation (1991-1993), and as Assistant Treasurer and Director of Corporate Finance of LTV Corporation (1986-1991).

Mr. Zigrossi was named Chief Administrative Officer in February 1994 and additionally was named Executive Vice President, Business Services, in October 1996. Prior to his current position, he served as TVA's President, Resource Group (1992-1994) and as TVA's Inspector General (1986-1992).

Mr. Christenbury assumed the position of General Counsel of TVA in January 1987. Prior to his current position, he served as an Assistant General Counsel at the NRC (1980-1987).

## **EMPLOYEES**

On September 30, 1996, TVA had about 15,990 employees, of which approximately 5,580 were trades and labor employees. Neither the federal labor laws covering most private sector employers, nor those covering most federal agencies are applicable to TVA; however, the Board has a longstanding policy of recognizing and dealing with recognized representatives of its employees. TVA employees are prohibited by federal law from engaging in strikes against TVA. In 1992, TVA entered into separate long-term agreements with the Tennessee Valley Trades and Labor Council ("Council"), the Salary Policy Employee Panel ("Panel"), and the International Brotherhood of Teamsters ("Teamsters"). One agreement recognizes the Panel for collective bargaining purposes for 20 years. The other recognizes the Council and Teamsters for collective bargaining purposes for 15 years. About 77 percent of TVA's employees are in these bargaining units, all of which are covered by existing collective bargaining agreements. The collective bargaining agreements with the Council (which is comprised of six unions representing annual trades and labor employees, including those working inside the power plants) and the Teamsters (covering materials handling work) have no specific expiration date; however, each contains provisions for possible expiration of major parts of the agreement as early as 1997, upon six months' notice. The collective bargaining agreement with the Panel (comprised of five unions representing white collar employees) also has no expiration date; however, the agreement provides for possible expiration of major parts of the agreement in 1999, upon 12 months' notice. Each of these agreements provide for negotiation of most provisions except monetary matters about every three years; wage and salary and benefit negotiations or adjustments generally occur annually. Unresolved disputes over rates of pay for trades and labor employees are resolved by binding decisions of the Secretary of Labor, while pay and monetary benefits disputes for other represented employees are resolved through binding arbitration. TVA's hourly construction, modification and supplemental maintenance work is now performed by contractors primarily under project labor agreements negotiated by TVA and the Council. Permanent craft operating and regular maintenance work continues to be performed by annual TVA employees represented by the Council for operating and maintenance employees, and by the Teamsters for materials handling work.

Salaries of regular TVA employees are limited by a federal pay cap (Executive Level IV, currently \$115,700). This had led in the past to difficulties in the recruitment and retention of top management talent, and continues to be an issue which TVA must face in its recruitment and retention efforts. The impact of the pay cap has been alleviated somewhat by the increases in TVA's pay cap since January 1990 from \$80,700 to \$115,700. TVA has also addressed this issue by developing and implementing supplementary compensation arrangements, which have substantially reduced the impact of the pay cap. In TVA's opinion, the implementation of these arrangements is within TVA's legal authority. The GAO has expressed the opinion that some of these arrangements are not within TVA's legal authority. However, GAO has no authority to issue binding legal opinions on this matter or to stop any TVA payments. Congress is aware of TVA's supplemental compensation arrangements and has not taken any action that would undermine TVA's position that the arrangements are within its legal authority. In October 1995, the President issued an Executive Order

requiring Government corporations, including TVA, to submit information to the U.S. Office of Management and Budget ("OMB") on bonuses paid to its senior executives in excess of \$25,000 for review by OMB and the U.S. Department of Labor. Those bonuses and the information supporting them were reported to OMB in October 1996 and will also be publicly disseminated. OMB approval of TVA's bonuses is not required.

## CERTAIN PROVISIONS OF THE TENNESSEE VALLEY AUTHORITY ACT

The following summarizes certain provisions of the Act.

# Payments in Lieu of Taxes

TVA is not subject to federal income taxes or to taxation by states or their subdivisions. However, the Act requires TVA to make payments in lieu of taxes to states and counties in which the power operations of the Corporation are conducted. The basic amount is 5 percent of gross revenues from the sale of power to other than federal agencies during the preceding year, with the provision for minimum payments under certain circumstances.

# Payments to the Treasury

The Act requires TVA to make certain payments into the Treasury each year from Net Power Proceeds in excess of those required for debt service as a return on and reduction of the Appropriation Investment. Net Power Proceeds are defined as the remainder of TVA's Gross Power Revenues after deducting the cost of operating, maintaining and administering its power properties (including multiple-purpose properties in the proportion that multiple-purpose costs are allocated to power) and payments to states and counties in lieu of taxes, but before deducting depreciation accruals or other charges representing the amortization of capital expenditures, plus the net proceeds of the sale or other disposition of any power facility or interest therein.

## **Acquisition of Real Estate**

The Act empowers TVA to acquire real estate in the name of the United States of America by purchase or by exercise of the right of eminent domain, "and thereupon all such real estate shall be entrusted to the Corporation as the agent of the United States to accomplish the purposes of [the] Act". Since nearly all of TVA's properties, including powerhouses and transmission line rights-of-way, constitute real estate, title to which is held in the name of the United States and entrusted to TVA as agent of the United States, all references in this Statement to "TVA properties" and the like, and to the amounts invested therein, should be read and construed in the light of this provision of the Act.

# THE BASIC RESOLUTION; POWER BONDS, DISCOUNT NOTES AND OTHER INDEBTEDNESS

TVA's Power Bonds are issued pursuant to Section 15d of the Act and pursuant to the Basic Resolution. At September 30, 1996, TVA had outstanding \$24.9 billion principal amount of Power Bonds and \$950 million of Power Bonds that are being redeemed under in-substance defeasance arrangements, issued pursuant to the Basic Resolution and resolutions supplemental thereto. Power Bonds may be issued only to provide capital for TVA's power program (including refunding any Evidences of Indebtedness issued for like purposes) and only as authorized by law at the time of issuance. Power Bonds are payable as to both principal and interest solely from Net Power Proceeds and are not obligations of, or guaranteed by, the United States of America. Net Power Proceeds for fiscal 1996, 1995, and 1994 were \$2.9 billion, \$2.6 billion and \$2.6 billion, respectively. Power Bonds of each series must be further authorized by Supplemental Resolution.

TVA intends from time to time to issue New Power Bonds with maturities and on terms determined in light of market conditions at the time of sale. The New Power Bonds may be sold to dealers or underwriters, who may resell the New Power Bonds in public offerings or otherwise. In addition, New Power Bonds may be sold by TVA directly or through other entities.

Except for FISBS described below, the specific aggregate principal amount, maturity, interest rate or method for determining such rate, interest payment dates, if any, purchase price to be paid to TVA, any terms for redemption or other special terms, form and denomination of New Power Bonds, information as to any stock exchange listing, and the names of any dealers, underwriters or agents, together with a description of any amendments or supplements to the Basic Resolution in connection with the sale of New Power Bonds being offered at a particular time, will be set forth in an offering circular, and any appropriate supplement thereto, together with the terms of such New Power Bonds.

New Power Bonds include TVA's FISBS that may be issued from time to time in installments with maturities of from one year to fifty years. TVA intends to offer FISBS for sale on a continuous basis to members of a group of securities dealers selected by TVA, who will resell such FISBS. The aggregate principal amount of all such Installment Bonds will not exceed \$4 billion at any one time outstanding and the maximum effective rate payable on any such Installment Bonds will not exceed 10 percent.

Information relating to FISBS will be set forth in an Installment Bonds offering circular and any appropriate amendment or supplement thereto. At the time of each sale TVA will determine if the FISBS then being sold will be subject to redemption prior to the maturity date and will establish the purchase price, principal amount, interest rate or interest rate formula, maturity date, and certain other terms of such sale.

TVA's Discount Notes are also issued pursuant to Section 15d of the Act and in accord with Section 2.5 of the Basic Resolution. As of September 30, 1996, TVA had outstanding approximately \$1.8 billion in Discount Notes. The Discount Notes are payable solely from Net Power Proceeds (but may, at the option of TVA, be paid from the proceeds of refunding obligations or other funds legally available for such payment) and are not obligations of, or guaranteed by, the United States of America.

TVA intends to offer Discount Notes for sale on a continuous basis to a group of securities dealers selected by TVA, who will resell such notes. Discount Notes will be issued in such form and upon such terms and conditions as deemed appropriate by TVA. Certain information respecting Discount Notes will be set forth in a Discount Notes offering circular and any appropriate supplement thereto.

TVA from time to time may issue Other Indebtedness, in addition to New Power Bonds and Discount Notes, to assist in financing its Power Program. Other Indebtedness, such as Quarterly Income Debt Securities ("QIDS"), are issued pursuant to Section 15d of the Act and under appropriate authorizing resolutions. At September 30, 1996, TVA had outstanding \$1.1 billion principal amount of QIDS.

Subordinated debt securities, such as QIDS, may be issued from time to time by TVA with maturities and on terms determined in light of market conditions at the time of sale. These subordinated debt securities may be sold to dealers or underwriters, who may resell them in public offerings or otherwise. In addition, the subordinated debt securities may be sold by TVA directly or through other entities. TVA subordinated debt securities will be payable as to both principal and interest solely from Net Power Proceeds and will not be obligations of, or guaranteed by, the United States of America.

The specific aggregate principal amount, maturity, interest rate or method for determining such rate, interest payment dates, if any, purchase price to be paid to TVA, any terms for redemption or other special terms, form and denomination of Other Indebtedness, information as to any stock exchange listing, and the names of any dealers, underwriters or agents, will be set forth in an offering circular, and any appropriate supplement thereto, together with the terms of such Other Indebtedness.

The following summary of certain provisions of the Basic Resolution does not purport to be complete and is qualified in its entirety by reference to the full text of the Basic Resolution.

#### **Application of Net Power Proceeds**

Section 2.3 of the Basic Resolution provides as follows:

Net Power Proceeds shall be applied, and the Corporation hereby specifically pledges them for application, first to payments due as interest on Bonds, on Bond Anticipation Obligations, and on any Evidences of Indebtedness issued pursuant to Section 2.5 which rank on a parity with Bonds as to interest; to

payments of the principal due on Bonds for the payment of which other provisions have not been made; and to meeting requirements of sinking funds or other analogous funds under any Supplemental Resolutions. The remaining Net Power Proceeds shall be used only for:

- (a) Required interest payments on any Evidences of Indebtedness issued pursuant to Section 2.5 which do not rank on a parity with Bonds as to interest.
- (b) Required payments of or on account of principal of any Evidences of Indebtedness other than Bonds.
- (c) Minimum payments into the United States Treasury required by the Act in repayment of and as a return on the Appropriation Investment.
- (d) Investment in Power Assets, additional reductions of the Corporation's capital obligations, and other lawful purposes related to the Power Program; provided, however, that payments into the United States Treasury in any fiscal year in reduction of the Appropriation Investment in addition to the minimum amounts required for such purpose by the Act may be made only if there is a net reduction during such year in the dollar amount of outstanding Evidences of Indebtedness issued for capital purposes, and only to such extent that the percentage of aggregate reduction in the Appropriation Investment during such year does not exceed the percentage of net reduction during the year in the dollar amount of outstanding Evidences of Indebtedness issued for capital purposes.

Section 2.4 of the Basic Resolution provides as follows:

The Corporation, having first adopted a Supplemental Resolution authorizing the issuance of a series of Bonds and pending such issuance, may issue Bond Anticipation Obligations and renewals thereof (including Interim Obligations to the Secretary of the Treasury) to be paid from the proceeds of such series of Bonds when issued or from other funds that may be available for that purpose.

Section 2.5 of the Basic Resolution provides as follows:

To assist in financing its Power Program the Corporation may issue Evidences of Indebtedness other than Bonds and Bond Anticipation Obligations, which may be payable out of Net Power Proceeds subject to the provisions of Section 2.3 hereof, but no such other Evidences of Indebtedness shall rank on a parity with or ahead of the Bonds as to payments on account of the principal thereof or rank ahead of the Bonds as to payments on account of the interest thereon.

See "Amendments to the Basic Resolution to Become Effective in the Future" for a discussion of amendments that will affect the above provisions of Sections 2.3 and 2.5 of the Basic Resolution.

#### Rate Covenant

Section 3.2 of the Basic Resolution provides as follows:

The Corporation shall fix, maintain and collect rates for power sufficient to meet in each fiscal year the requirements of that portion of the present subsection (f) of section 15d of the Act which states as follows:

The Corporation shall charge rates for power which will produce gross revenues sufficient to provide funds for operation, maintenance, and administration of its power system; payments to States and counties in lieu of taxes; debt service on outstanding bonds, including provision and maintenance of reserve funds and other funds established in connection therewith; payments to the Treasury as a return on the appropriation investment pursuant to subsection (e) hereof; payment to the Treasury of the repayment sums specified in subsection (e) hereof; and such additional margin as the Board may consider desirable for investment in power system assets, retirement of outstanding bonds in advance of maturity, additional reduction of appropriation investment, and other purposes connected with the Corporation's power business, having due regard for the primary objectives of the Act, including the objective that power shall be sold at rates as low as are feasible.

For purposes of this Resolution, "debt service on outstanding bonds," as used in the above provision of the Act, shall mean for any fiscal year the sum of all amounts required to be (a) paid during such fiscal year as interest on Evidences of Indebtedness, (b) accumulated in such fiscal year in any sinking or other analogous fund provided for in connection with any Evidences of Indebtedness, and (c) paid in such fiscal year on account of the principal of any Evidences of Indebtedness for the payment of which funds will not be available from sinking or other analogous funds, from the proceeds of refunding issues, or from other sources; provided, however, that for purposes of clause (c) of this definition Bond Anticipation Obligations and renewals thereof shall be deemed to mature in the proportions and at the times provided for paying or setting aside funds for the payment of the principal of the authorized Bonds in anticipation of the issuance of which such Bond Anticipation Obligations were issued.

The rates for power fixed by the Corporation shall also be sufficient so that they would cover all requirements of the above-quoted provision of subsection (f) of section 15d of the Act if, in such requirements, there were substituted for "debt service on outstanding bonds" for any fiscal year the amount which if applied annually for 35 years would retire, with interest at the rates applicable thereto, the originally issued amounts of all series of Bonds and other Evidences of Indebtedness, any part of which was outstanding on October 1 of such year.

#### Covenant for Protection of Bondholders' Investment

Under the Act and Section 3.3 of the Basic Resolution, TVA must, in each successive 5-year period beginning October 1, 1960, use either for the reduction of its capital obligations (including Evidences of Indebtedness and the Appropriation Investment) or for investment in Power Assets an amount of Net Power Proceeds at least equal to the sum of (1) depreciation accruals and other charges representing the amortization of capital expenditures and (2) the net proceeds from any disposition of power facilities.

#### **Depreciation**

The Basic Resolution requires TVA to accrue, in accordance with a recognized method, annual amounts for depreciation of its power properties (except land and other nondepreciable property) which will amortize their original cost less anticipated net salvage value within their expected useful lives. TVA has provided allowances for depreciation of its power properties (except land and other nondepreciable property) on a straight-line basis during their expected useful lives.

#### Issuance of Additional Bonds and Other Evidences of Indebtedness

The Act presently limits the issuance of Evidences of Indebtedness by TVA to a total of \$30 billion outstanding at any one time to assist in financing TVA's power program (and for refunding). At September 30, 1996, TVA had approximately \$27.7 billion of outstanding Evidences of Indebtedness. This total does not include \$950 million of Power Bonds that are being redeemed under in-substance defeasance arrangements and are not considered by TVA to be included in the amount of debt that is subject to the \$30 billion limit. (Irrevocable trusts, that hold U.S. Treasury obligations that will provide funds sufficient to pay all remaining amounts that will become due, have been established for each series of Power Bonds being defeased. See Note 6 of the accompanying Financial Statements.) TVA has announced an intention to limit, by October 1997, total outstanding debt to \$28 billion. The Basic Resolution permits the issuance of Power Bonds only to provide capital for TVA's power program, including the refunding of any Evidences of Indebtedness issued for that purpose.

Power Bonds, the terms and conditions of which may not be inconsistent with the Basic Resolution, must also be authorized by Supplemental Resolution.

The issuance of Power Bonds is limited as follows by the Basic Resolution:

Each Supplemental Resolution authorizing the issuance of Power Bonds must contain a finding by the Board that after the Power Bonds authorized thereby have been issued Gross Power Revenues will be adequate to meet the requirements of the Basic Resolution with respect to rates and the application of depreciation accruals. These requirements are described under "The Basic Resolution; Power Bonds, Discount Notes and Other Indebtedness" — "Rate Covenant" and — "Covenant for Protection of Bondholders' Investment".

The amount of Power Bonds outstanding may not be increased unless net power income (after interest expense and depreciation charges but before payments as a return on or in reduction of the appropriation investment) for the latest five fiscal years has aggregated at least \$200 million. Moreover, that minimum requirement is increased by \$15 million for each ¼ percent (or major fraction thereof) by which the average for those five years of the October 1 average interest rate payable by the United States Treasury upon its total marketable public obligations exceeds 3¼ percent. See Section 3.4 of the Basic Resolution and "The Basic Resolution Power Bonds, Discount Notes and Other Indebtedness" — "Amendments to the Basic Resolution to Become Effective in the Future".

Pending the issuance of Power Bonds authorized by a Supplemental Resolution, Bond Anticipation Obligations and renewals thereof (including Interim Obligations to the Secretary of the Treasury) may be issued, to be paid from the proceeds of such Power Bonds when issued or from other funds that may be available for that purpose.

Evidences of Indebtedness (such as Discount Notes) other than Power Bonds and Bond Anticipation Obligations may also be issued to assist in financing TVA's power program. They may be payable out of Net Power Proceeds subject to the provisions of Section 2.3 of the Basic Resolution. They may not rank on a parity with or ahead of the Power Bonds as to principal or ahead of them as to interest. See "Amendments to the Basic Resolution to Become Effective in the Future".

#### Mortgaging and Disposal of Power Properties

TVA may not mortgage any part of its power properties and may not dispose of all or any substantial portion of such properties unless provision is made for a continuance of the interest, principal and sinking fund payments due and to become due on all outstanding Evidences of Indebtedness, or for the retirement of such Evidences of Indebtedness.

#### **Modifications of Resolutions and Outstanding Bonds**

The Basic Resolution provides for amendments to it, to any Supplemental Resolution, and to any outstanding Power Bonds. In summary, amendments of the respective rights and obligations of TVA and the bondholders may be made with the written consent of the holders of at least 66½ percent in principal amount of the outstanding Power Bonds to which the amendment applies; but changes in the maturity, principal amount, redemption premium, or rate of interest or maturity of any interest installment, with respect to any Power Bond, or in the above percentage for any such consent, cannot be made without the consent of the holder of such Power Bonds.

In addition, TVA may amend the Basic Resolution or any Supplemental Resolution without the consent of the bondholders in order (1) to close the Basic Resolution against the issuance of additional Power Bonds or to restrict such issuance by imposing additional conditions or restrictions; (2) to add other covenants and agreements to be observed by TVA or to eliminate any right, power or privilege conferred upon TVA by the Basic Resolution; (3) to modify any provisions to release TVA from any of its obligations, covenants, agreements, limitations, conditions or restrictions, provided that such modification or release shall not become effective with respect to any Power Bonds issued prior to the adoption of such amendment; (4) to correct any defect, ambiguity or inconsistency in, or to make provisions in regard to matters or questions arising under, the Basic Resolution or any Supplemental Resolution, so long as such amendments are not contrary to, or inconsistent with, the Basic Resolution or such Supplemental Resolution; or (5) to make any other modification or amendment which the Board by resolution determines will not materially and adversely affect the interests of holders of the Power Bonds.

#### **Events of Default**

Any of the following shall be deemed an Event of Default under the Basic Resolution: (i) default in the payment of the principal or redemption price of any Power Bond when due and payable at maturity, by call for redemption, or otherwise; (ii) default in the payment of any installment of interest on any Power Bond when due and payable for more than 30 days; or (iii) failure of TVA to duly perform any other covenant, condition or agreement contained in the Power Bonds or in the Basic Resolution or any Supplemental Resolution for 90 days after written notice specifying such failure has been given to TVA by the holders of at least 5 percent in aggregate principal amount of the then outstanding Power Bonds.

Upon any such Event of Default, the holders of the Power Bonds may proceed to protect and enforce their respective rights, subject to the restrictions described below. The holders of at least 5 percent in aggregate principal amount of Power Bonds then outstanding shall, subject to certain restrictions, have the right and power to institute a proceeding (i) to enforce TVA's covenants and agreements, (ii) to enjoin any acts in violation of the rights of holders of Power Bonds, and (iii) to protect and enforce the rights of holders of Power Bonds. Power Bonds do not provide for acceleration upon an Event of Default.

Such holders have no right to bring any such action or proceeding against TVA unless they have given TVA written notice of an Event of Default, and TVA has had a reasonable opportunity to take appropriate corrective action with respect thereto and has failed or refused to do so.

Holders of a majority in aggregate principal amount of the outstanding Power Bonds have the right to direct the time, method and place of conducting any proceeding for any remedy available and may waive any default and its consequences, except a default in the payment of the principal of, premium, if any, or interest on any Power Bonds.

#### Amendments to the Basic Resolution to Become Effective in the Future

On March 25, 1992, TVA adopted a resolution amending the Basic Resolution, entitled "Fourth Amendatory Resolution to Basic Tennessee Valley Authority Power Bond Resolution" (the "Fourth Amendatory Resolution"). The amendments to the Basic Resolution made by the Fourth Amendatory Resolution will become effective only at such time as either (a) all Power Bonds issued prior to the date of adoption of the Fourth Amendatory Resolution cease to be outstanding (which will occur not later than November 15, 2029) or (b) the holders of at least 66½ percent of the principal amount of all then outstanding Power Bonds issued prior to the adoption of the Fourth Amendatory Resolution consent in writing to such amendments. At such times as the amendments become effective, they shall apply to all Power Bonds. The holders of Power Bonds offered after March 25, 1992, shall be deemed to have given their consent to the effect that, at any time after the conditions set forth in (a) or (b) above have been met, the amendments to the Basic Resolution made by the Fourth Amendatory Resolution will become effective in the manner provided. No further vote or consent of the holders of Power Bonds offered after March 25, 1992, is required to permit such amendments to the Basic Resolution to become effective.

The Fourth Amendatory Resolution, when effective in accordance with its terms and the terms of the Basic Resolution as described above, will (1) delete from the Basic Resolution the limitation on issuance of Power Bonds set forth in Section 3.4 thereof and (2) amend the Basic Resolution to permit issuance of other Evidences of Indebtedness under Section 2.5 thereof that rank on a parity with Power Bonds as to principal and interest.

Section 3.4 of the Basic Resolution presently restricts TVA's ability to issue Power Bonds unless net power income (after interest expense and depreciation charges but before payments as a return on or in reduction of the Appropriation Investment) for the latest five fiscal years has aggregated at least \$200 million. That amount is increased by \$15 million for each ¼ percent (or major fraction thereof) by which the average for those five years of the October 1 average interest rates payable by the United States Treasury upon its total marketable public obligations exceeds 3¼ percent. Upon the effectiveness of the Fourth Amendatory Resolution (which eliminates Section 3.4) Sections 3.5 through 3.10 will be renumbered as appropriate.

The foregoing is a brief summary of certain provisions of the Fourth Amendatory Resolution. This summary is not to be considered a full statement of the terms of the Fourth Amendatory Resolution and, accordingly, is qualified by reference to the Fourth Amendatory Resolution. Copies in reasonable quantity of the Fourth Amendatory Resolution may be obtained upon written request directed to Tennessee Valley Authority, 400 West Summit Hill Drive, Knoxville, Tennessee 37902, Attention: Vice President and Treasurer, or by calling (423) 632-3366.

#### Stripping

Certain series of the Corporation's New Power Bonds (the "Eligible New Power Bonds") may be separated ("stripped") into their Interest and Principal Components (as hereinafter defined) and maintained as such on the book-entry records of the Federal Reserve Banks. The components of each Eligible New Power Bond are: each future interest payment due on or prior to the first date on which the Eligible New Power Bond is subject to redemption at the option of the Corporation (each an "Interest Component"); and the principal payment plus any interest payments after the first date on which the Eligible New Power Bond is subject to redemption at the option of the Corporation (the "Principal Component"). Each Interest Component and the Principal Component will receive an identifying designation and CUSIP number. A request for separation of an Eligible New Power Bond into its Interest and Principal Components must be made to the Federal Reserve Bank of New York ("FRBNY"). Currently the FRBNY does not charge a fee for stripping Eligible New Power Bonds. For an Eligible New Power Bond to be stripped into its Interest and Principal Components as described above, the principal amount of the Eligible New Power Bond must be in an amount that, based on the stated interest rate of the Eligible New Power Bonds, will produce a semi-annual interest payment of \$1,000 or multiples thereof. The minimum principal amounts required to strip an Eligible New Power Bond at various interest rates, as well as the interest payments corresponding to those minimum principal amounts, may be obtained by calling the Corporation's Vice President and Treasurer at (423) 632-3366 and the minimum principal amount required to strip an Eligible New Power Bond will be disclosed in a related offering circular except for Installment Bonds. Interest and Principal Components will be obligations of TVA payable solely from TVA's Net Power Proceeds.

Once a New Power Bond has been stripped into its Interest and Principal Components, the Interest and Principal Components may be maintained and transferred on the book-entry system of the Federal Reserve Banks in integral multiples of \$1,000. Payments on the Interest and Principal Components will be made on the applicable payment dates on the related New Power Bonds by crediting holders' accounts at the FRBNY. At the request of a holder and on the holder's payment of a fee (currently the FRBNY's fee applicable to on-line book-entry securities transfers), the FRBNY will restore ("reconstitute") the unmatured Interest and Principal Components of a stripped New Power Bond to their fully constituted form. Holders wishing to reconstitute the unmatured Interest and Principal Components of a stripped New Power Bond to their fully constituted form must (i) produce all outstanding Interest and Principal Components for a stripped New Power Bond and (ii) comply with all applicable requirements of the FRBNY governing the stripping and reconstitution of securities.

The offering price of the Interest and Principal Components could be at substantial discounts from their face amounts and, as a result, these components may be subject to greater interest rate volatility than the fully constituted New Power Bonds or other obligations bearing current interest. There also may be a less liquid secondary market for such Interest and Principal Components as compared to the secondary market for the fully constituted New Power Bonds.

The Interest and Principal Components of Eligible New Power Bonds could be subject to restrictions or requirements with respect to the legality of investment therein which do not apply to New Power Bonds held in their fully constituted form. Thus, each person or entity is advised to consult with its own counsel with respect to the legality of investment in Interest and Principal Components.

#### INDEPENDENT ACCOUNTANTS

The financial statements of TVA at September 30, 1996, and 1995 and for each of the three fiscal years in the period ended September 30, 1996, appended hereto as part of the Information Statement, have been audited by Coopers & Lybrand L.L.P., independent accountants, as set forth in their report, dated October 24, 1996, which report is also appended hereto.

\* \* \* \* \*

Any statements in this Information Statement involving matters of opinion, whether or not expressly so stated, are intended as such and not as representations of fact. This Information Statement is not to be construed as a contract or agreement with the purchaser of any of the New Power Bonds, Discount Notes or Other Indebtedness.

This Information Statement has been approved by a duly authorized officer of the Tennessee Valley Authority.

Tennessee Valley Authority

By: /s/ JOHN M. HOSKINS

John M. Hoskins Vice President and Treasurer

Dated December 23, 1996

## FINANCIAL STATEMENTS

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# BALANCE SHEETS At September 30, 1996 and 1995

	Power p	orogram	All pro	grams
	1996	1995	1996	1995
		(in mi	llions)	
ASSETS				
Current Assets				
Cash and cash equivalents	\$ 238	\$ 52	\$ 318	\$ 131
Accounts receivable	680	681	689	698
Inventories and other, at average cost Fuel	110	104	110	104
Other	278	251	278	251
Total current assets	1,306	1,088	1,395	1,184
Property, Plant and Equipment	1,500	1,000	1,373	1,104
Completed plant	27,955	18,412	29,069	19,488
Less accumulated depreciation	(6,553)	(6,061)	(6,854)	(6,351)
Net completed plant	21,402	12,351	22,215	13,137
Construction in progress	744	9,556	764	9,606
Deferred nuclear generating units	6,293	6,227	6,293	6,227
Nuclear fuel and capital lease assets	1,082	1,167	1,082	1,167
Total property, plant and equipment	29,521	29,301	30,354	30,137
Investment Funds	440	260	440	260
Deferred Charges and Other Assets	210	222	275	20.4
Loans and other long-term receivables  Debt issue and reacquisition costs	319 1,162	323 1,233	375 1,162	394 1,233
Other deferred charges	1,102	1,088	1,102	1,088
Total deferred charges and other assets	$\frac{1,261}{2,762}$	2,644	2,818	2,715
Total assets	\$34,029	\$33,293	\$35,007	\$34,296
			Ψ33,007	Ψ34,270
LIABILITIES AND PROPRIETARY	CAPITAL			
Current Liabilities	¢ 202	¢ (04	¢ 417	¢ 722
Accounts payable	\$ 392 187	\$ 694 130	\$ 417 196	\$ 722 141
Accrued interest	498	455	498	455
U.S. Treasury notes	<del></del>	150	<del></del>	150
Discount notes	1,774	2,681	1,774	2,681
Current maturities of long-term debt	2,250	1,306	2,250	1,306
Total current liabilities	5,101	5,416	5,135	5,455
Other Liabilities	1,580	1,264	1,580	1,264
Long-term Debt	40.404	40.450	40.400	404.50
Senior debt: public bonds	19,403	19,153	19,403	19,153
Federal Financing Bank	3,200	3,200 600	3,200	3,200 600
Unamortized discount and other adjustments	1,100 (383)	(370)	1,100 (383)	(370)
· ·				
Total long-term debt  Proprietary Capital	23,320	22,583	23,320	22,583
Appropriation investment	608	628	4,800	4,713
Retained earnings reinvested in power program	3,420	3,402	3,420	3,402
Accumulated net expense of nonpower programs			(3,248)	(3,121)
Total proprietary capital	4,028	4,030	4,972	4,994
Total liabilities and proprietary capital	\$34,029	\$33,293	\$35,007	\$34,296

# STATEMENTS OF INCOME — POWER PROGRAM For the Years Ended September 30, 1996, 1995 and 1994

	1996 1995		1994	
	(1	in millions)	)	
Operating Revenues				
Sales of electricity				
Municipalities and cooperatives	\$4,980	\$4,654	\$4,582	
Industries directly served	452	460	452	
Federal agencies	172	179	296	
Other	89	82	71	
Total operating revenues	5,693	5,375	5,401	
Operating Expenses				
Fuel and purchased power, net	1,278	1,443	1,493	
Operating and maintenance	1,218	1,050	1,081	
Depreciation and amortization	904	703	639	
Tax-equivalents	256	<u>252</u>	248	
Total operating expenses	3,656	3,448	3,461	
Operating income	2,037	1,927	1,940	
Other Expense, Net	(10)	(91)	(59)	
Income before interest expense	2,027	1,836	1,881	
Interest Expense				
Interest on debt	1,965	1,908	1,731	
Amortization of debt discount, issue, and reacquisition costs, net	118	116	122	
Allowance for funds used during construction	_(117)	_(198)	_(123)	
Net interest expense	1,966	1,826	1,730	
Net Income	\$ 61	<u>\$ 10</u>	\$ 151	

# STATEMENTS OF CASH FLOWS For the Years Ended September 30, 1996, 1995, and 1994

	Power program						
	1996	1995	1994	1996	1995	1994	
			(in mi	llions)			
Cash Flows From Operating Activities							
Net power income Net expense of nonpower programs Items not requiring (providing) cash	\$ <u>61</u>	\$ <u>10</u>	\$ <u>151</u>	\$ 61 (127)	\$ 10 (182)	\$ 151 (136)	
Depreciation and amortization Allowance for funds used during	924	715	639	938	728	651	
construction	(117) 156 162	(198) 112 72	(123) 176 217	(117) 156 164	(198) 112 142	(123) 176 216	
Accounts receivable	(1) (22)	(5) (8)	76 99	7 (22)	22 (8)	66 99	
liabilities	(246) 43 (50)	74 31 (1)	(23) (21) (47)	(250) 43 (50)	(36) 31 (2)	(51) (21) (47)	
Net cash provided by operating activities	910	802	1,144	803	619	981	
Cash Flows From Investing Activities							
Construction expenditures Allowance for funds used during	(1,107)	(1,868)	(2,015)	(1,121)	(1,880)	(2,023)	
construction	117	198	123	117	198	123 70	
Nuclear fuel	(76) (162) (26)	(77) $(100)$ $(24)$	70 (26) (80)	(76) (162) (13)	(77) (100) (39)	(26) (77)	
Net cash used in investing activities	(1,254)	(1,871)	(1,928)	(1,255)	(1,898)	(1,933)	
Cash Flows From Financing Activities Long-term debt							
Issues	4,400 (2,706)	3,500 (2,503)	6,381 (3,175) (1,493)	4,400 (2,706)	3,500 (2,503)	6,381 (3,175) (1,493)	
Short-term borrowings, net Borrowing expenses, net Congressional appropriations	(1,057) (44) —	222 (38)	(726) (252)	(1,057) (44) 109	222 (38) 139	(726) (252) 141	
Payments to U.S. Treasury Net cash provided by financing	<u>(63</u> )	(62)	(62)	(63)	(62)	(62)	
activities	530	1,119	673	639	1,258	814	
Net change in cash	186 52	50 2	(111) $113$	187 131	(21) 152	(138) <u>290</u>	
Cash at end of period	\$ 238	\$ 52	<u>\$ 2</u>	\$ 318	\$ 131	\$ 152	

# STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL — POWER PROGRAM

	For the years ended September 30,			
	1996	1995	1994	
		(in millions)		
Retained earnings reinvested at beginning of period	\$3,402	\$3,434	\$3,325	
Net income	61	10	151	
Return on appropriation investment	(43)	(42)	(42)	
Retained earnings reinvested at end of period	3,420	3,402	3,434	
Appropriation investment at beginning of period	628	648	668	
Return of appropriation investment	(20)	(20)	(20)	
Proprietary capital at end of period	\$4,028	\$4,030	\$4,082	

# STATEMENTS OF NET EXPENSE — NONPOWER PROGRAMS

	For the years ended September				
	1996	1995	1994		
		(in millions)			
Water and Land Stewardship	\$ 75	\$ 63	\$ 86		
Land Between The Lakes	7	6	4		
Economic Development	25	23	20		
Environmental Research Center	20	21	26		
Columbia Dam		69			
Net expense	<u>\$127</u>	<u>\$182</u>	<u>\$136</u>		

# STATEMENTS OF CHANGES IN PROPRIETARY CAPITAL — NONPOWER PROGRAMS

	For the years ended September 30,					
	1996	1995	1994			
		(in millions)				
Proprietary capital at beginning of period	\$ 964	\$1,007	\$1,002			
Congressional appropriations	109	139	141			
Net expense	(127)	(182)	(136)			
Transfers to other federal agencies, net	(2)					
Proprietary capital at end of period	\$ 944	<u>\$ 964</u>	\$1,007			

# TENNESSEE VALLEY AUTHORITY NOTES TO FINANCIAL STATEMENTS

#### 1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

#### General

TVA is a wholly-owned corporate agency and instrumentality of the United States. It was established by the TVA Act with the objective of developing the resources of the Tennessee Valley region in order to strengthen the regional and national economy and the national defense by providing (1) an ample supply of power within the region, (2) navigable channels and flood control for the Tennessee River System, and (3) agricultural and industrial development and improved forestry in the region. TVA carries out these regional and national responsibilities in an area that centers on Tennessee and parts of Alabama, Georgia, Kentucky, Mississippi, North Carolina, and Virginia.

TVA's programs are divided into two types of activities — the power program and the nonpower programs. Substantially all TVA revenues and assets are attributable to the power program. The power program is separate and distinct from the nonpower programs and is required to be self-supporting from power revenues and funds borrowed from public markets. The power program receives no congressional appropriations and is required to make annual payments to the U.S. Treasury in repayment of, and as a return on, the government's initial appropriation investment in TVA power facilities. Most of the funding for TVA's nonpower programs is provided by congressional appropriations. Certain nonpower activities are also funded by various revenues and user fees. Financial accounts for the power and nonpower programs are kept separately.

Power rates are established by the TVA Board of Directors as authorized by the TVA Act. The TVA Act requires TVA to charge rates for power that, among other things, will produce gross revenues sufficient to provide funds for operation, maintenance, administration of its power system; payments to states in lieu of taxes; and debt service on outstanding indebtedness.

#### Revenue recognition

Revenues from power sales are recorded as service is rendered to customers. TVA accrues estimated unbilled revenues for power sales provided to customers for the period of time from the end of the billing cycle to month-end.

#### Property, plant, and equipment, and depreciation

Additions to plant are recorded at cost, which includes direct and indirect costs such as general engineering, a portion of corporate overhead, and an allowance for funds used during construction. The cost of current repairs and minor replacements is charged to operating expense. The TVA Act requires TVA's Board of Directors to allocate the cost of completed multipurpose projects between the power and nonpower programs, subject to the approval of the President of the United States. The original cost of property retired, together with removal costs less salvage value, is charged to accumulated depreciation. Depreciation is generally computed on a straight-line basis over the estimated service lives of the various classes of assets. The average of the composite rates applied individually to each major class of plant for fiscal years 1996, 1995, and 1994 was 2.67 percent, 3.19 percent, and 3.14 percent, respectively.

#### **Decommissioning costs**

The excess of the annual decommissioning provision over earnings from any investments designated for funding decommissioning costs is charged to depreciation expense. Effective for fiscal years 1994-1995, the decommissioning accruals were adjusted to reflect revised estimated useful lives for Browns Ferry and Sequoyah nuclear plants. During this period, investment earnings approximated decommissioning expense and no charges were made to depreciation expense. Decommissioning expense for 1996 is \$13 million.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

#### Allowance for funds used during construction

The practice of capitalizing an allowance for funds used during construction is followed in the power program. The allowance is applicable to construction in progress excluding deferred nuclear generating units. Effective October 1, 1994, TVA changed its assumptions used in determining the interest rate used to calculate the allowance for funds used during construction. The change was made to more accurately reflect the nature of the indebtedness issued to fund construction. The effect of the change for fiscal year 1995 was to increase the amount of interest capitalized by approximately \$56 million.

#### Other deferred charges

Deferred charges primarily include regulatory assets capitalized under the provisions of Statement of Financial Accounting Standards No. 71, *Accounting for the Effects of Certain Types of Regulation*. Effective for 1994, TVA elected to reclassify a \$1,009 million capitalized interest component of nuclear fuel to other deferred charges. This regulatory asset is being amortized over a period of approximately eight years, generally on a straight-line basis, subject to adjustment based on annual generating and operating performance, and as considered necessary to ensure full recovery of these costs and compliance with the requirements of the TVA Act. The effect of this change is to increase amortization expense and reduce nuclear fuel expense. During fiscal years 1996, 1995, and 1994, this change reduced net income by \$16 million, \$7 million, and \$126 million, respectively. The remaining balance of nuclear fuel not reclassified to deferred charges will continue to be expensed, based on generation.

#### **Investment funds**

Investment funds consist primarily of a portfolio of investments in trusts designated for funding nuclear decommissioning requirements (see note 10). These funds, at September 30, 1996, were invested in portfolios generally designed to earn returns consistent with overall equity market performance.

#### Debt issuance and reacquisition costs

Issue and reacquisition expenses, call premiums and other related costs, and discounts on power borrowings are deferred and amortized (accreted), respectively, on a straight-line basis over the term of the related outstanding securities.

#### Tax-equivalents

The TVA Act requires TVA to make payments to states and local governments in which the power operations of the corporation are conducted. The base amount is 5 percent of gross revenues from the sale of power to other than federal agencies during the preceding year, with a provision for minimum payments under certain circumstances. Cash paid for tax-equivalents for fiscal years 1996, 1995, and 1994 have been \$256 million, \$252 million, and \$247 million, respectively.

#### Interest and capital costs

During fiscal years 1996, 1995, and 1994, cash paid for interest on outstanding indebtedness (net of amount capitalized) was \$1,805 million, \$1,678 million, and \$1,628 million, respectively. In addition to paying interest on outstanding indebtedness, the TVA Act requires TVA to make annual payments to the U.S. Treasury. The annual Treasury payments represent a repayment of the original appropriation investment, along with a return on the appropriation investment. TVA paid \$20 million each year for fiscal years 1996, 1995, and 1994 as a repayment of the appropriation investment. TVA paid \$43 million to the U.S. Treasury in 1996 as a return on the appropriation investment, while paying \$42 million in each of fiscal years 1995 and 1994.

# TENNESSEE VALLEY AUTHORITY NOTES TO FINANCIAL STATEMENTS — (Continued)

#### Statements of cash flows

Cash and cash equivalents include the cash available in commercial bank accounts and U.S. Treasury accounts, as well as short-term securities held for the primary purpose of general liquidity. Such securities mature within three months from the date of acquisition.

#### Research and development costs

Expenditures related to research-and-development costs of new or existing products and processes are expensed as incurred. The amounts charged against income were \$45 million in 1996, \$43 million in 1995, and \$47 million in 1994.

#### Insurance

TVA is primarily self-insured for property loss, workers' compensation, general liability, and automotive liability. TVA is also self-insured for health care claims for eligible active and retired employees. Consulting actuaries assist the company in determining its liability for self-insured claims. TVA maintains nuclear liability insurance with an outside party (see note 10).

#### Management estimates

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the related amounts of revenues and expenses during the reporting period. Actual results could differ from those estimates.

#### 2. NUCLEAR POWER PROGRAM

The nuclear power program at September 30, 1996, consists of nine units — five operating, three deferred, and one inoperative — at four locations, with investments in property, plant, and equipment as follows and in the status indicated:

	Operating units	Installed capacity (megawatts)	Completed plant, net (in million	Construction in progress ons)	Deferred	Fuel investment
Browns Ferry	2	2,304	\$ 3,681	\$ 36	\$ —	\$204
Sequoyah	2	2,442	2,035	102		121
Watts Bar	1	1,270	6,819	18	1,718	48
Bellefonte		_	_	_	4,575	_
Raw materials	_					504
Total	_5	<u>6,016</u>	\$12,535	<u>\$156</u>	\$6,293	\$877

Browns Ferry 1, 2, and 3 were taken out of service in 1985 for plant modifications and regulatory improvements. Browns Ferry 2 was returned to service in 1991. Browns Ferry 3, after completing all essential programmatic and technical requirements, began fuel load in October 1995 and was connected to the TVA power system in November 1995. Browns Ferry 1 will continue to remain in an inoperative status until its ultimate disposition is determined. For financial reporting purposes, the undepreciated cost of Browns Ferry 1 of \$86 million is included in net completed plant and is being depreciated as part of the recoverable cost of the plant over the remaining license period.

After receiving a low-power operating license from the Nuclear Regulatory Commission (NRC), fuel load at Watts Bar 1 was completed in November 1995. In February 1996, Watts Bar 1 received a full-power license and has operated commercially since May 27, 1996.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

In 1988, TVA suspended construction activities on Watts Bar 2, and the unit is currently in lay-up. In 1988 and 1985, TVA deferred construction activities at Bellefonte 1 and 2, respectively. Estimated 1997 expenditures for the three units total \$10 million and are limited to lay-up, maintenance, and ensuring that options for completion remain viable.

In 1993, TVA began an integrated resource planning process from which information was utilized to determine TVA's strategy for meeting future customer energy demands. As part of this long-term energy strategy, TVA reevaluated the need for finishing Bellefonte 1 and 2 and Watts Bar 2 as nuclear units. In December 1994, TVA determined it will not, by itself, complete Bellefonte 1 and 2 and Watts Bar 2 as nuclear units. In the Integrated Resource Plan (IRP), TVA determined that it would study the potential for converting the Bellefonte Nuclear Plant to a combined cycle plant utilizing natural gas or gasified coal as the primary fuel and/or joint venturing with a partner for completion. The feasibility of converting Bellefonte to such an alternate fuel will require in-depth engineering and financial analyses; and accordingly, TVA is utilizing an outside team of technical and financial experts. The IRP also concluded that Watts Bar 2 should remain in deferred status until completion of the Bellefonte study. The impact on TVA's financial position of completing, converting, or joint venturing these units will be determined upon completion of the Bellefonte study. The future decisions on these units will ultimately impact the method of cost recovery, and the TVA Board has determined that it will, at that time, establish rate adjustments and operating policies to ensure full recovery of the cost of these units and compliance with the requirements of the TVA Act. For financial reporting purposes, the cost of the three units is presented as deferred nuclear generating units.

#### Nuclear fuel

During 1994 and 1995, TVA converted certain fuel assemblies to forms suitable for use at alternate sites, and entered into various agreements wherein certain nuclear fuel was loaned or exchanged for fuel-related services and other consideration. As the book value of the natural uranium component of TVA's nuclear fuel exceeded market value, TVA recognized charges in the statements of income related to such transactions, totaling \$31 million in 1995 and \$140 million in 1994.

#### 3. COMPLETED PLANT

Completed plant consists of the following at September 30:

		1996		1995			
Power program	Cost	Accumulated depreciation	Net	Cost	Accumulated depreciation	Net	
			(in mi	llions)			
Fossil plants	\$ 7,320	\$2,790	\$ 4,530	\$ 6,826	\$2,607	\$ 4,219	
Nuclear plants	14,370	1,835	12,535	5,813	1,552	4,261	
Transmission	2,911	943	1,968	2,659	934	1,725	
Hydro plants	1,273	454	819	1,184	449	735	
Other	2,081	531	1,550	1,930	519	1,411	
Total power	<u>\$27,955</u>	\$6,553	<u>\$21,402</u>	\$18,412	\$6,061	<u>\$12,351</u>	

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

#### 4. LEASES

Certain property, plant, and equipment are leased under agreements with terms ranging from one to 30 years. Most of the agreements include purchase options or renewal options that cover substantially all the economic lives of the properties.

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Obligations under capital lease agreements in effect at September 30, were:

Fiscal year	plant capital leases (in millions)
1997	\$ 36
1998	36
1999	
2000	
2001	
Thereafter	336
Total future minimum lease payments	
Less interest element	(311)
Present value of future minimum lease payments	\$ 205

#### 5. APPROPRIATION INVESTMENT — POWER PROGRAM

The TVA Act requires TVA to make annual payments to the U.S. Treasury from net power proceeds. Payments must be of a market rate of return on the net appropriation investment in power facilities plus an annual repayment to reduce such investment (see note 1 — interest and capital cost). The payments required by the TVA Act may be deferred under certain circumstances for not more than two years. The return is based on the appropriation investment as of the beginning of the year and the computed average interest rate payable by the U.S. Treasury on its total marketable public obligations as of the same date (6.87 percent at September 30, 1996).

#### 6. DEBT

#### **Borrowing authority**

The TVA Act authorizes TVA to issue bonds, notes, and other evidences of indebtedness up to a total of \$30 billion outstanding at any one time. TVA must meet certain cash flow and earnings tests that are contained in the TVA Act and the Basic TVA Power Bond Resolution. Debt service on these obligations, which is payable solely from TVA's net power proceeds, has precedence over the payment to the U.S. Treasury described in note 5.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

#### **Debt outstanding**

Debt outstanding at September 30, 1996 and 1995 (excluding defeased debt of \$950 million and \$1.2 billion, respectively, which is not considered by TVA to be debt that is subject to the \$30 billion bond limit), consists of the following:

	1996	1995
	(in mi	llions)
Short-term debt		
U.S. Treasury notes	\$ —	\$ 150
Held by the public		2 (01
Discount notes (net of discount)	1,774	2,681
Current maturities of long-term debt — 3.30% to 6.00%	2,250	1,306
Total short-term debt	4,024	4,137
Long-term debt		
Held by the public — senior		
Maturing in fiscal year 1997		2,250
Maturing in fiscal year 1998 — 5.07% to 5.98%	1,453	453
Maturing in fiscal year 1999 — 6.25% to 7.625%	750	1,550
Maturing in fiscal year 2000 — 7.43% to 8.375%	1,000	1,100
Maturing in fiscal years 2001 through 2045 — 6.00% to 8.625%	16,200	13,800
Held by Federal Financing Bank — senior		
Maturing in fiscal years 2003 through 2016 — 8.535% to 11.695%	3,200	3,200
Held by the public — subordinated		
Maturing in fiscal years 2045 through 2046 — 7.50% to 8.00%	1,100	600
Total long-term debt	23,703	22,953
Unamortized discount and other adjustments	(383)	(370)
Net long-term debt	23,320	22,583
Total debt	\$27,344	\$26,720

#### Short-term debt

The weighted average rates applicable to short-term debt outstanding in the public market as of September 30, 1996 and 1995, were 5.38 percent and 5.79 percent, respectively. During fiscal years 1996, 1995, and 1994, the maximum outstanding balance of short-term borrowings held by the public was (in millions) \$3,537, \$3,503, and \$4,062, respectively, and the average amounts (and weighted average interest rates) of such borrowings were approximately (in millions) \$2,692 (5.50 percent), \$2,743 (5.83 percent), and \$3,163 (3.75 percent), respectively.

#### Put and call options

Bond issues of \$15.2 billion held by the public are redeemable in whole or in part, at TVA's option, on call dates ranging from the present to April 2012 at call prices ranging from 100 percent to 106.7 percent of the principal amount. Additionally, TVA has bond issues of \$1.5 billion held by the public that are repayable in whole or in part at the option of the respective bondholders. One bond issue totaling \$500 million, which matures in July 2045, is repayable in 2001 at the option of the bondholders, while another issue totaling \$1 billion, which matures in April 2036, is repayable in 1998 or 2006 at the option of the bondholders. Both issues are reported with maturity dates corresponding to the earliest date on which bonds of each respective issue may be repaid at the option of the bondholders.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

#### Advance refundings

TVA has incurred premiums totaling \$1.5 billion to effect certain advance refundings during recent years. These premiums are being deferred and recognized as an expense ratably through the maturity dates of the new debt issues. Certain advance refundings were effected through in-substance defeasance transactions, wherein TVA transferred sufficient funds to establish irrevocable trusts to hold securities that are scheduled to earn interest and mature in amounts sufficient to meet debt service requirements.

#### Foreign currency transactions

During fiscal year 1996, TVA entered into a currency swap contract as a hedge for a foreign currency denominated debt transaction. Any gain (loss) on the debt instrument due to the foreign currency transaction will be offset by a loss (gain) on the swap contract. At September 30, 1996, the currency transaction resulted in a \$16 million gain, which is included in the account "unamortized discount and other adjustments." The offsetting loss on the swap contract is recorded as a deferred liability.

#### 7. FAIR VALUE OF FINANCIAL INSTRUMENTS

TVA uses the methods and assumptions described below to estimate the fair values of each significant class of financial instrument. TVA does not hold or issue financial instruments for trading purposes.

#### Cash and cash equivalents, and short-term debt

The carrying amount approximates fair value because of the short-term maturity of these instruments.

#### **Investment funds**

At September 30, 1996, these investments were classified as available for sale and carried at their fair value.

#### Loans and other long-term receivables

Fair values for these homogeneous categories of loans and receivables are estimated by determining the present value of future cash flows using the current rates at which similar loans are presently made to borrowers with similar credit ratings and for the same remaining maturities.

#### **Bonds**

Fair value of long-term debt traded in the public market is determined by multiplying the par value of the bonds by the quoted market price (asked price) nearest the balance sheet date. The fair value of other long-term debt and long-term debt held by the Federal Financing Bank is estimated by determining the present value of future cash flows using rates of financial instruments with quoted market prices of similar characteristics and the same remaining maturities.

The estimated values of TVA's financial instruments at September 30 are as follows:

	1996					1995		
	Carrying amount		Fair amount				9	
	(in millions)					s)		
Cash and cash equivalents	\$	318	\$	318	\$	131	\$	131
Investment funds		440		440		260		260
Loans and other long-term receivables		375		365		394		378
Short-term debt		1,774		1,774		2,831		2,831
Long-term debt, including current maturities	2	5,953	2	6,562	2	4,259	2	4,426

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

The fair market value of the financial instruments held at September 30, 1996, may not be representative of the actual gains or losses that will be recorded when these instruments mature or when they are called or presented for early redemption.

#### 8. BENEFIT PLANS

#### Pension plan

TVA has a defined benefit plan consisting of two benefit structures, the Original Benefit Structure and the Cash Balance Benefit Structure, which covers most full-time employees. The plan assets are primarily stocks and bonds. TVA contributes to the plan such amounts as are agreed upon between TVA and the TVA Retirement System board of directors which, in no event, would be less than the amount necessary on an actuarial basis to provide assets sufficient to meet obligations for benefits. The pension benefit for participants in the Original Benefit Structure is based on the member's years of creditable service, average base pay for the highest three consecutive years, and the pension rate for the member's age and years of service, less a Social Security offset.

The Cash Balance Benefit Structure was implemented January 1, 1996. The pension benefit for participants in the Cash Balance Benefit Structure is based on credits accumulated in the member's account and the member's age. The account also increases at an interest rate equal to the change in the Consumer Price Index plus 3 percent, which amounted to 5.82 percent for fiscal 1996.

The components of pension expense for fiscal years ended September 30 were:

	1996	1995	1994
		(in millions)	
Pension expense			
Service cost	\$ 72	\$ 62	\$ 76
Interest cost on projected benefit obligation	309	304	275
Actual return on assets	(616)	(816)	(32)
Net amortization and deferral	217	450	(307)
Net pension (income) expense	<u>\$ (18)</u>	\$ 0	\$ 12
Funded status			
Actuarial present value of benefit obligations			
Vested benefit obligation	\$(3,506)	\$(3,256)	\$(2,839)
Nonvested benefits	(50)	(113)	(111)
Accumulated benefit obligation	(3,556)	(3,369)	(2,950)
Effects of projected future compensation	(401)	(323)	(389)
Projected benefit obligation	(3,957)	(3,692)	(3,339)
Plan assets at fair value	4,851	4,375	3,674
Excess of plan assets over projected benefit obligation	894	683	335
Unrecognized net gain	(770)	(627)	(280)
Unrecognized net obligation being amortized over 15 years			
beginning October 1, 1987	2	2	3
Prepaid pension cost	<u>\$ 126</u>	\$ 58	\$ 58

The discount rate used to determine the actuarial present value of the projected benefit obligation was 8.0 percent in 1996, 7.5 percent in 1995, and 8.5 percent in 1994. The assumed annual rates of increase in future compensation levels for 1996 and 1995 ranged from 3.3 to 8.3 percent, and in 1994 ranged from 4.3 to 9.3 percent. The expected long-term rate of return on plan assets was 11 percent for 1996, 1995, and 1994.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

#### Other postretirement benefits

TVA sponsors an unfunded defined benefit postretirement plan that provides for contributions toward the cost of retirees' medical coverage. The plan covers employees who, at retirement, are age 60 (or who are age 50 and have at least five years of service). TVA's contributions are a flat dollar amount based upon the participant's age and years of service and certain payments toward the plan costs.

The annual assumed cost trend for covered benefits is 11.0 percent in fiscal year 1996, decreasing by one-half percent per year reaching 5.5 percent in 2007 and thereafter. For fiscal years 1995 and 1994, annual trend rates of 11.5 percent and 13.0 percent respectively were assumed. The effect of the change in assumptions on a cost basis was not significant. Increasing the assumed health-care cost trend rates by 1 percent would increase the accumulated postretirement benefit obligation (APBO) as of September 30, 1996, by \$25 million and the aggregated service and interest cost components of net periodic postretirement benefit cost for 1996 by \$2 million.

The weighted average discount rate used in determining the APBO was 8.0 percent for fiscal year 1996, 7.5 percent for fiscal year 1995, and 8.5 percent for fiscal year 1994. For fiscal years 1996 and 1995, any net unrecognized gain or loss resulting from experience different from that assumed or from changes in assumptions, in excess of 10 percent of the APBO, is amortized over the average remaining service period of active plan participants. For fiscal year 1994, gains and losses resulting from experience different from that assumed, or from changes in assumptions, are amortized using a straight-line method over four years.

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The following sets forth the postretirement plan's funded status at September 30:

	1990	1995	1994
	(in millions)		
Accumulated postretirement benefit obligation (APBO)			
Retirees	\$230	\$214	\$166
Fully eligible active plan participants	4	1	1
Other active plan participants	187	116	114
APBO	421	331	281
Unrecognized net loss (gain)	<u>(95</u> )	(15)	6
Accrued postretirement benefit cost	<u>\$326</u>	<u>\$316</u>	<u>\$287</u>
Net periodic postretirement benefit cost			
Service cost	\$ 8	\$ 7	\$ 10
Interest cost	24	26	22
Amortization of gain			<u>(5</u> )
Net periodic postretirement benefit cost	\$ 32	\$ 33	\$ 27

## Other postemployment benefits

Statement of Financial Accounting Standards No. 112, Employers Accounting for Postemployment Benefits, applies to postemployment benefits, including workers' compensation provided to former or inactive employees, their beneficiaries, and covered dependents after employment but before retirement. Adoption of SFAS No. 112 on October 1, 1994, changed TVA's method of accounting from recognizing costs as benefits are paid to accruing the expected costs of providing these benefits. This resulted in recognition of an original transition obligation of approximately \$280 million. During fiscal year 1996, TVA made adjustments to certain assumptions utilized in the determination of the obligation at September 30, 1996. The adjustments to assumptions resulted in an increase in the original transition obligation of approximately \$194 million at September 30, 1996. In connection with adoption of SFAS No. 112, and related approval by its Board of

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

Directors, TVA recorded the transition obligation as a regulatory asset. The regulatory asset is being amortized over approximately 15 years, whereby the annual expense will approximate the expense that would be recorded on an as-paid basis.

#### Early-out and accelerated severance package

In 1996, TVA provided both voluntary and involuntary severance packages, which affected approximately 800 employees. The 1996 package totaled approximately \$35 million and consisted primarily of severance pay, which was charged to the power program as other expense during 1996.

In 1995, TVA made available early-out benefit termination packages, which were accepted by approximately 2,500 employees. The 1995 package totaled \$148 million and consisted of severance pay (\$74 million), retirement benefits (\$52 million), and postretirement health benefits (\$22 million). Of the total cost, \$136 million was applicable to the power program and was charged to other expense during 1995. The remaining \$12 million was applicable to non-power operations and was recorded by the power program as a long-term receivable to be recovered from future available nonpower funds.

#### 9. MAJOR CUSTOMERS

In accordance with contract provisions, the Department of Energy (DOE) exercised its right prior to fiscal year 1987 to reduce the amount of electric power it would purchase from TVA. TVA and DOE reached an agreement in December 1987, whereby DOE's payment obligations were satisfied through a series of payments to TVA totaling more than \$1.8 billion between 1987 and 1994. Payments of \$160 million were included in revenues in fiscal year 1994.

One municipal customer accounts for approximately 10 percent of total power sales and four other municipal customers account for an additional 21 percent of total power sales. These five municipal customers purchase power from TVA under long-term contracts for terms of 20 years, which require 10 years' notice to terminate.

#### 10. CONSTRUCTION EXPENDITURES AND COMMITMENTS AND CONTINGENCIES

#### **Construction expenditures**

Construction expenditures, including capitalized interest, are estimated to be approximately \$920 million for 1997 and \$850 million for 1998. These estimates are revised periodically to reflect changes in economic conditions and other factors considered in their determination.

#### **Purchase commitments**

TVA has entered into approximately \$2.4 billion in long-term commitments ranging in terms of up to eight years for the purchase of coal.

#### **Contingencies**

Nuclear Insurance. The Price-Anderson Act sets forth an indemnification and limitation of liability plan for the U.S. nuclear industry. All NRC licensees, including TVA, maintain nuclear liability insurance in the amount of \$200 million for each plant with an operating license. The second level of financial protection required is the industry's retrospective assessment plan, using deferred premium charges. The maximum amount of the deferred premium for each nuclear incident is approximately \$79 million per reactor, but not more than \$10 million per reactor may be charged in any one year for each incident. TVA could be required to pay a maximum of \$396 million per nuclear incident on the basis of its five licensed units, but it would have to pay no more than \$50 million per incident in any one year.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

In accordance with NRC regulations, TVA carries property and decontamination insurance of \$1.06 billion at each licensed nuclear plant for the cost of stabilizing or shutting down a reactor after an accident. Some of this insurance may require the payment of retrospective premiums of up to a maximum of approximately \$43 million.

Acid Rain Legislation. The Clean Air Act Amendments of 1990 require fossil-fuel fired generation units to reduce their sulfur dioxide and nitrogen oxide emissions in two phases in order to control acid rain. The Phase I compliance period commenced on January 1, 1995, while the Phase II compliance period commences on or after January 1, 2000. Based on the level of emissions, 26 of TVA's 59 operating coal-fired units are classified as Phase I units, with the remaining units being Phase II units. Compliance with these requirements has resulted in substantial expenditures for the reduction of emissions at TVA's coal-fired generating plants.

TVA's compliance strategy to reduce sulfur dioxide emissions included the use of lower-sulfur coal at three of its fossil plants and the installation of scrubbers at its Cumberland Fossil Plant. During 1995, TVA completed the addition of scrubbers at Cumberland for a total cost of \$638 million.

Nitrogen oxide reductions are required for 19 of TVA's Phase 1 units. These reductions were achieved through the installation of low-nitrogen-oxide burners at 13 units, with some of those units also being equipped with over-fire air. The emissions from the remaining Phase 1 units were averaged with those from controlled units to achieve compliance. During 1996, TVA installed equipment at eight units for Phase II nitrogen-oxide-emission requirements.

Expenditures related to the Clean Air projects during 1996 were approximately \$80 million. TVA has already completed the actions necessary to achieve Phase 1 compliance for both sulfur dioxide and nitrogen oxide emissions, and TVA is proceeding to take actions to comply with Phase II requirements that become effective in the year 2000 or after. The total cost of compliance cannot reasonably be determined at this time because of the uncertainties surrounding final Environmental Protection Agency regulations, resultant compliance strategy, potential for development of new emission control technologies, and future amendments to the legislation.

Hazardous Substances. The release and cleanup of hazardous substances are regulated under the Comprehensive Environmental Response, Compensation, and Liability Act. In a manner similar to other industries and power systems, TVA has generated or used hazardous substances over the years. TVA has been identified as a potentially responsible party with respect to three off-site disposal areas. TVA's liability at these sites has not yet been determined. In addition, TVA is currently investigating two other sites that TVA either owns or partially owns. TVA may have cleanup responsibilities at those sites by virtue of its control of the property. TVA's potential liabilities for its share of cleanup costs at these sites are uncertain but are not expected to be substantial.

Litigation. TVA is a party to various civil lawsuits and claims that have arisen in the ordinary course of its business. Although the outcome of pending litigation cannot be predicted with any certainty, it is the opinion of TVA counsel that the ultimate outcome should not have a material adverse effect on TVA's financial position or results of operations.

**Decommissioning Costs.** Provision for decommissioning costs of nuclear generating units is based on the estimated cost to dismantle and decontaminate the facilities to meet NRC criteria for license termination. At September 30, 1996, the present value of the estimated future decommissioning cost of \$305 million is included in other liabilities. The decommissioning cost estimates are based on prompt dismantlement and removal of the plant from service. The actual decommissioning costs may vary from the estimates because of changes in the assumed dates of decommissioning, changes in regulatory requirements, changes in technology, and changes in costs of labor, material, and equipment.

#### NOTES TO FINANCIAL STATEMENTS — (Continued)

TVA maintains an investment trust fund to provide funding for the decommissioning of nuclear power plants. Prior to September 1993, \$210 million of power funds was invested in zero coupon bonds. In September 1993, TVA determined that the portfolio of investments could be sold and such proceeds reinvested in instruments that would yield greater proceeds over the remaining term to decommissioning dates. Accordingly, these investments were sold for \$373 million and TVA realized a gain of \$163 million. The gain was deferred and amortized into income over a 24-month period beginning in October 1993. At September 30, 1995, a \$260 million investment portfolio consisting of short-term marketable securities had been reestablished. During 1996, TVA contributed an additional \$123 million to the fund and at September 30, 1996, the entire fund was invested in equity market index funds.

#### 11. NONPOWER PROGRAMS

TVA's nonpower programs deliver various public services. These public services include managing navigable channels, providing flood control, overseeing certain recreation facilities, and generating general economic development. The nonpower programs encompass general stewardship of land, water, and wildlife resources. TVA's nonpower programs also conduct certain research and development activities in pollution prevention and remediation.

Funding for nonpower programs is primarily provided through federal appropriations. During fiscal years 1996 and 1995, the nonpower programs received appropriations of \$109 million and \$139 million respectively. Certain nonpower-program activities are also funded by user fees and outside-services revenues.

During fiscal year 1995, the nonpower programs had a net expense of \$182 million, which included a \$69 million charge for the write-off of the Columbia Dam and Reservoir project. The Columbia Dam and Reservoir, a multipurpose project financed by congressional appropriations, was suspended in prior years due to budget restrictions and environmental concerns. During fiscal year 1995, TVA determined that the Columbia Dam would not be completed and accordingly, the project cost was expensed.

The completed plant of the nonpower programs consists of multipurpose dams and other plant. At September 30, 1996, the net completed plant balances for multipurpose dams and other plant were \$705 million and \$108 million, respectively. At September 30, 1995, the net completed plant balances for multipurpose dams and other plant were \$682 million and \$104 million, respectively.

#### REPORT OF INDEPENDENT ACCOUNTANTS

#### To the Board of Directors of the Tennessee Valley Authority

We have audited the accompanying balance sheets (power program and all programs) of the Tennessee Valley Authority as of September 30, 1996 and 1995, and the related statements of income (power program), changes in proprietary capital (power program and nonpower programs), net expense (nonpower programs), and cash flows (power program and all programs) for each of the three years in the period ended September 30, 1996. These financial statements are the responsibility of the Tennessee Valley Authority's management. Our responsibility is to express an opinion on these financial statements based on our audits.

We conducted our audits in accordance with generally accepted auditing standards and *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the financial statements referred to above present fairly, in all material respects, the financial position of the power program and all programs of the Tennessee Valley Authority as of September 30, 1996 and 1995, the results of operations of the power program and nonpower programs, and cash flows of the power program and all programs for each of the three years in the period ended September 30, 1996, in conformity with generally accepted accounting principles.

As discussed in note 8 to the financial statements, in 1995 the Tennessee Valley Authority adopted Statement of Financial Accounting Standard No. 112, Employers Accounting for Post-employment Benefits.

In accordance with *Government Auditing Standards*, we have also issued a report, dated October 24, 1996, on our consideration of the Tennessee Valley Authority's internal control structure and a report, dated October 24, 1996, on its compliance with laws and regulations.

Coopers & Lybrand L.L.P. Knoxville, Tennessee October 24, 1996

#### REPORT OF MANAGEMENT

Management is responsible for the preparation, integrity, and objectivity of the financial statements of the Tennessee Valley Authority as well as all other information contained in the annual report. The financial statements have been prepared in conformity with generally accepted accounting principles applied on a consistent basis and, in some cases, reflect amounts based on the best estimates and judgments of management, giving due consideration to materiality. Financial information contained in the annual report is consistent with that in the financial statements.

The Tennessee Valley Authority maintains an adequate system of internal controls to provide reasonable assurance that transactions are executed in accordance with management's authorization, that financial statements are prepared in accordance with generally accepted accounting principles, and that the assets of the corporation are properly safeguarded. The system of internal controls is documented, evaluated, and tested on a continuing basis. No internal control system can provide absolute assurance that errors and irregularities will not occur due to the inherent limitations of the effectiveness of internal controls; however, management strives to maintain a balance, recognizing that the cost of such a system should not exceed the benefits derived. No material internal control weaknesses have been reported to management.

Coopers & Lybrand L.L.P. was engaged to audit the financial statements of the Tennessee Valley Authority and issue reports thereon. Its audits were conducted in accordance with generally accepted auditing standards. Such standards require a review of internal controls, and an examination of selected transactions and other procedures sufficient to provide reasonable assurance that the financial statements neither are misleading nor contain material errors. The Report of Independent Accountants does not limit the responsibility of management for information contained in the financial statements and elsewhere in the annual report.

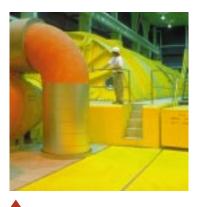
David N. Smith Chief Financial Officer and Executive Vice President of Financial Services



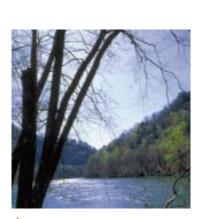
To be the recognized world leader in providing energy and related services, independently and in alliances with others, for society's global needs.



TVA's 16,800-mile system of transmission lines through seven states serves as a vital part of the United States energy infrastructure.



TVA's power system is one of the largest in the United States in both generating capacity and energy production.



TVA is environmentally sensitive in the management of the thousands of acres it is responsible for along the Tennessee River system.



TVA's electric generation facilities are state of the art, including computer controlled production.



TVA manages over 600 miles of the Tennessee River system for flood control, navigation, power production, and recreation.



TVA, in alliances with others, acts as a national laboratory for electric technology advancements.

No dealer, salesperson or any other person has been authorized to give any information or to make any representations other than those contained in this Offering Circular or the current Information Statement contained herein, and, if given or made, such information or representations must not be relied upon as having been authorized by TVA or the Underwriter. Neither the delivery of this Offering Circular or the current Information Statement nor any sale of Bonds described herein shall under any circumstances create an implication that the information provided herein is correct at any time subsequent to its date. This Offering Circular does not constitute an offer to sell or a solicitation of an offer to buy the Bonds described herein in any jurisdiction to any person to whom it is unlawful to make such offer or solicitation in such jurisdiction.

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# Tennessee Valley Authority

6.15% Power Bonds 1998 Series B Due January 15, 2038

OFFERING CIRCULAR

Goldman, Sachs & Co.